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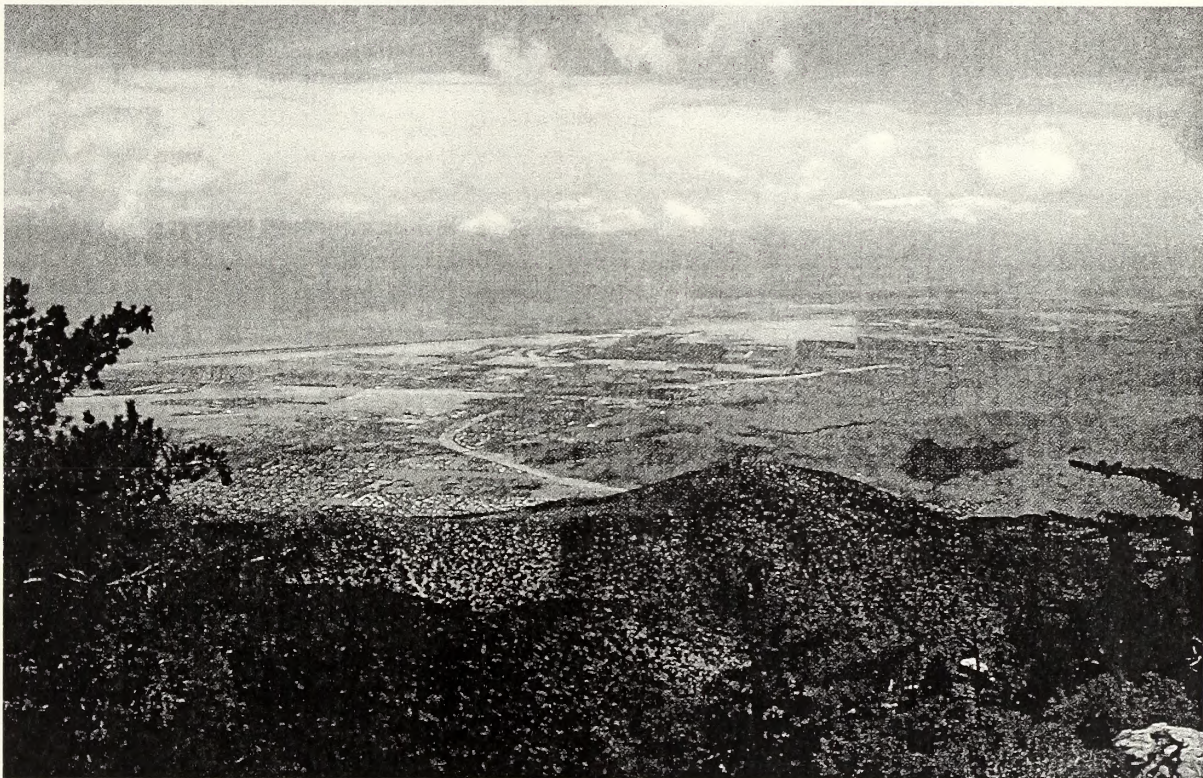
Draft Environmental Impact Statement

for the

Draft California Desert Conservation Area
Plan Amendment for the Coachella Valley

and the

Draft Santa Rosa and San Jacinto Mountains
Trails Management Plan



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United States Department of the Interior
Bureau of Land Management
California Desert District
Palm Springs-South Coast Field Office

*Draft California Desert Conservation Area Plan Amendment
for the Coachella Valley*

*Draft Santa Rosa and San Jacinto Mountains
Trails Management Plan*

and Draft Environmental Impact Statement

Riverside County, California
June 2002

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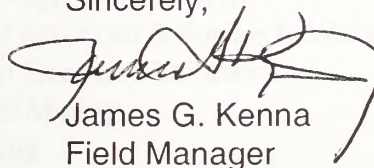
Dear Reader:

Enclosed for your review and comment is the Draft California Desert Conservation Area (CDCA) Plan Amendment for the Coachella Valley, Draft Santa Rosa and San Jacinto Mountains Trails Management Plan, and Draft Environmental Impact Statement (EIS). This document describes and analyzes a range of alternatives for managing the public lands administered by the Bureau of Land Management in the Coachella Valley of southern California. Amongst these alternatives, the BLM's preferred alternative is identified, and a description of the "no-action" alternative (i.e. continuation of current management) is included. These draft plans/draft EIS may also be accessed via internet at the web address listed above. This document is being prepared in tandem with the *Coachella Valley Multi-Species Habitat Conservation Plan* (CVMSHCP), and in collaboration with the local governments of the Coachella Valley, State and other Federal agencies, Agua Caliente Band of Cahuilla Indians, and private entities.

Comments received from the public shall be incorporated into the Final EIS, including names and addresses. Individual respondents may request confidentiality. If you wish to withhold your name or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comments. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Please submit your comments in writing to the address listed in this letterhead, no later than September 5, 2002, which ends the 90-day public review period. Comments may be sent by fax at (760) 251-4899 or electronic mail to emisquez@ca.blm.gov. Your interest in collaborative stewardship of the public lands is appreciated.

Sincerely,


James G. Kenna
Field Manager

**Draft California Desert Conservation Area Plan Amendment
for the Coachella Valley,**

**Draft Santa Rosa and San Jacinto Mountains Trails Management Plan,
and Draft Environmental Impact Statement**

Location: Riverside County, California

Responsible Agency: Department of the Interior
Bureau of Land Management
California State Office

Prepared by: Department of the Interior
Bureau of Land Management
Palm Springs-South Coast Field Office

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Abstract: This draft CDCA Plan Amendment, trails management plan, and draft EIS describes and analyzes a range of alternatives for managing the public lands administered by the Bureau of Land Management in the Coachella Valley of southern California. This document is being prepared in tandem with the *Coachella Valley Multi-Species Habitat Conservation Plan*, in coordination with the local governments of the Coachella Valley, State and other Federal agencies, and private entities.

**Draft California Desert Conservation Area Plan Amendment
for the Coachella Valley,
Draft Santa Rosa and San Jacinto Mountains Trails Management Plan,
and Draft Environmental Impact Statement**

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California Desert Conservation Area Plan Amendment
Santa Rosa and San Jacinto Mountains Trails Management Plan
and Draft Environmental Impact Statement
for the Coachella Valley, California

EXECUTIVE SUMMARY

INTRODUCTION

The Bureau of Land Management (BLM) is a federal agency responsible for managing the public lands in accordance with federal law, regulation and policy in order to sustain the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations.

The Federal Land Policy and Management Act of 1976 (FLPMA), BLM's organic act, directs the BLM to prepare land use plans which provide guidance, with public input, on how the public lands are to be managed. All subsequent activities on the BLM-managed public lands must be in conformance with the approved land use plan. The *California Desert Conservation Area Plan* (CDCA Plan, 1980, as amended) provides land use plan guidance for the entire California Desert Conservation Area. The CDCA Plan has undergone numerous minor amendments over the past 20 years, and is currently undergoing major amendments, divided into five eco-regions/planning areas: 1) the Northern and Eastern Colorado Desert planning area, 2) the Northern and Eastern Mojave Desert planning area, 3) the West Mojave Desert planning area, 4) the Coachella Valley planning area and 5) the Imperial Sand Dunes planning area.

The Bureau of Land Management (BLM) manages approximately 28 percent (330,516 acres) of the total federal and non-federal land base in the Coachella Valley planning area (1,195,057 acres). The Coachella Valley planning area (Figure 1-2) is located approximately 100 miles east of Los Angeles in central Riverside County, plus a small portion in San Bernardino County.

A. Purpose and Need

The BLM in the Coachella Valley planning area has a need:

- 1) to provide for multiple use and sustainable development of the public lands while making progress towards healthy, properly functioning ecosystems;
- 2) to provide for the recovery of federal and state listed species;
- 3) to avoid future listings of sensitive species;
- 4) to provide recreational opportunities on the public lands;
- 5) to make available mineral and energy resources on the public lands;
- 6) to work collaboratively with the local jurisdictions to facilitate land management consistency, management effectiveness and cost-efficiency across jurisdictional boundaries.

The purpose of this plan amendment is to develop a general plan of action (in accordance with Title 43 *Code of Federal Regulations* Part 1610) for the BLM-managed public lands that will meet the aforementioned needs while at the same time:

- 1) Shall minimize resource use conflicts;
- 2) Shall not unduly burden Bureau resources and funding capability, including maintenance activities;
- 3) Shall include actions which are manageable and implementable relative to the urban/wildland interface and the public/private interface;
- 4) Shall be conducted in coordination with the members of the public, local jurisdictions, State and other Federal agencies to garner the public support needed to effectively implement the plan.

The BLM has a need in the Santa Rosa and San Jacinto Mountains to 1) provide for the recovery of federal and state listed species, 2) to avoid future listings of sensitive species, 3) to provide recreational opportunities on the public lands, and 4) to work collaboratively with the local jurisdictions to facilitate land management consistency, management effectiveness and cost-efficiency across jurisdictional boundaries. The purpose of the Santa Rosa and San Jacinto Mountains trails management plan is to develop a management strategy which provides year-round hiking, biking and equestrian use opportunities on the public lands while promoting recovery of the Peninsular Ranges bighorn sheep. This strategy must also meet the aforementioned purpose statements identified for the Coachella Valley California Desert Conservation Area Plan Amendment.

B. Relationship to Other Plans

BLM planning regulations at 43 CFR 1610.3-2 require BLM planning documents to be consistent with officially approved resource-related plans, policies and programs of other Federal, State and local government agencies, and Indian Tribes, to the extent legally feasible under Federal laws and regulations. The Coachella Valley California Desert Conservation Area Plan Amendment is being developed in concert with several planning efforts relevant to the Coachella Valley. These plans and their relationship to this plan amendment are summarized below:

The Coachella Valley Multi-Species Habitat Conservation Plan/ Natural Communities Conservation Plan (CVMSHCP). The Coachella Valley CDCA plan amendment was developed in tandem with the CVMSHCP to provide the framework for those implementation actions which will support landscape-level conservation and provide for community needs. The CVMSHCP will include a combined Environmental Impact Review (EIR), as required by the California Environmental Quality Act, and Environmental Impact Statement (EIS), as required by the National Environmental Policy Act. The Santa Rosa and San Jacinto Mountains Trails Management Plan is an element of and would be incorporated into the CVMSHCP. Upon completion of the CVMSHCP, the BLM proposes to adopt management measures in support of this plan as an activity (implementation) level plan for public lands within the planning area. The activity plan would be tiered to BLM's Coachella Valley California Desert Conservation Area Plan Amendment.

Santa Rosa and San Jacinto Mountains National Monument Management Plan. In October of 2000, the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 created a 272,000 acre national monument on BLM and Forest Service managed land. The Act requires development of a management plan by Fall of 2003. This National Monument is entirely within the Coachella Valley planning boundary. BLM's Coachella Valley CDCA Plan Amendment decisions affecting the National Monument would be brought forward into the management plan, as will US Forest Service plan revision decisions affecting the National Monument.

The Recovery Plan for the Peninsular Ranges Bighorn Sheep. Recovery plans, developed by the U.S. Fish and Wildlife Service (USFWS), identify actions needed to reverse the decline of a threatened or endangered species. Such actions frequently require coordination among Federal, State, and local agencies, academic researchers, conservation organizations, private individuals, and major land users in order to be successful. However, the development and approval phases of recovery plans are excluded from National Environmental Policy Act of 1969 (NEPA) requirements because they are advisory in nature.

The Peninsular Ranges population of bighorn sheep (PRBS; *Ovis canadensis nelsoni*) was listed as endangered in 1998. In October of 2000, the USFWS completed the *Peninsular Ranges Bighorn Sheep Recovery Plan* which recommends actions to recover and protect this listed species. In February 2001, USFWS designated critical habitat for the PRBS. Bureau of Land Management employees were consulted during preparation of the recovery plan. The recovery plan makes recommendations which are directly applicable and addressed in this CDCA plan amendment.

Through the CVMSHCP, Trails Management Plan and CDCA Plan amendment, the BLM is considering a range of alternatives, each composed of a suite of actions and guided by the Recovery Plan recommendations. The alternatives include habitat improvements (tamarisk control, water sources, etc.), land exchanges, land acquisitions, trails management, and limits to other activities. Altogether, the decisions regarding these actions will compose the strategy to be implemented on BLM-managed public lands in order to contribute to bighorn sheep population recovery. By means of these planning efforts, the alternative strategies for public lands are analyzed by an interdisciplinary team and with the benefit of public input and comment in accordance with NEPA, as well as plan-level consultation with the USFWS.

Agua Caliente Band of Cahuilla Indians Land Management Plan. The Agua Caliente Band of Cahuilla Indians is developing a Tribal Habitat Conservation Plan for the Agua Caliente Indian Reservation. The purposes of this plan are to balance environmental protection and economic development objectives for the Reservation and to simplify compliance with the Endangered Species Act. BLM-managed public lands adjoin Tribal lands in a number of locations throughout the Valley. BLM's CDCA plan amendment was developed in coordination with the Tribal Habitat Conservation Plan in order to facilitate consistency in land uses and habitat protection across the Coachella Valley. Furthermore, the Tribe and the BLM operate under a Cooperative Management Agreement and actively seek to find ways to engage in activities that improve land management compatibility, effectiveness and efficiency.

Santa Rosa Mountains Wildlife Habitat Management Plan: A Sikes Act Project (Sikes Act Plan): This plan was jointly prepared and approved by BLM and the State of California Resources Agency, Department of Fish and Game in 1980. It described shared wildlife and habitat management objectives, as well as actions to implement those objectives. The plan includes information that is no longer current, decisions that have already been implemented, decisions which no longer fit current conditions, and decisions which are still relevant. The CVMSHCP and the Santa Rosa and San Jacinto Mountains Trails Management Plan (an activity plan) would update and amend the Sikes Act Plan.

Draft 2002 Coachella Valley PM10 State Implementation Plan Due to exceedances of the 24-hour and annual average PM10 standards, U.S. EPA classified Coachella Valley as a serious PM10 non-attainment area. In cooperation with the Coachella Valley Association of Governments, local jurisdictions, government agencies (including BLM), developers/builders, farmers, other stakeholders and the public, the South Coast Air Quality Management District (AQMD) staff prepared the draft 2002 Coachella Valley PM10 State Implementation Plan (2002 SIP). The purpose of the 2002 SIP is to develop an enhanced PM10 reduction program that demonstrates attainment with the PM10 standards by the earliest practicable date, and to provide the necessary supporting documentation to formally request an extension of the PM10 attainment date. In response to the 2002 SIP, the BLM has incorporated an air quality management strategy in this Coachella Valley CDCA Plan Amendment, in an effort to reduce PM10 emissions from the public lands.

General Plans and Management Plans prepared by Local Jurisdictions, Native American Tribes, and State Agencies. The BLM shall coordinate with the local jurisdictions, Native American Tribes and State Agencies to facilitate consistency with plans prepared by these entities, to the legal extent feasible under Federal law, regulation and policy.

The Northern and Eastern Colorado Desert (NECO) Plan. BLM's Draft NECO Plan provides alternative scenarios for a comprehensive framework for managing species and habitats, including recovery of the desert tortoise, on Federal lands managed by the BLM, National Park Service (Joshua Tree National Park), and the U.S. Marine Corps (Chocolate Mountains Aerial Gunnery Range) in eastern San Bernardino, Riverside, and Imperial Counties. The western edge of the NECO plan overlaps the CVMSHCP planning area by about 55,000 acres, all in Riverside County. The proposed NECO plan and final environmental impact statement is scheduled for completion Summer of 2002. Even though the respective planning leads have been coordinating to facilitate consistency in the overlap area, some NECO Plan decisions may require amending in order to complete the CVMSHCP.

The West Mojave Desert Plan. The West Mojave Plan is being jointly prepared by local jurisdictions, the Department of Defense and BLM, and encompasses 9.4 million-acres in most of California's western Mojave Desert. Approximately two square miles of the West Mojave planning boundary overlaps with the Coachella Valley planning boundary, all within San Bernardino County. The draft plan is currently under preparation and scheduled for public release late in 2002. The BLM planning team leads for the West Mojave and Coachella Valley plan are working together to ensure consistency between the two plans in the overlap area.

C. Planning Criteria

Coachella Valley California Desert Conservation Area Plan Amendment. Planning criteria are “sideboards” which guide development of the California Desert Conservation Area Plan amendment, to ensure it is tailored to the issues and to avoid unnecessary data collection and analyses. In addition to the standard suite of Federal laws, regulations, Executive Orders, Manual guidance and Bureau policies which guide all BLM planning and environmental review documents, the following criteria were specifically established to guide development of the California Desert Conservation Area (CDCA) Plan Amendment for the Coachella Valley:

- 1) This CDCA Plan Amendment for the Coachella Valley shall be completed by December 31, 2002.
- 2) As this Coachella Valley planning effort is an amendment to and not a revision of the CDCA Plan (1980, as amended), any CDCA plan elements not addressed nor specifically changed in this plan amendment shall remain extant and in effect.
- 3) The planning boundary for the Northern and Eastern Colorado Desert (NECO) Plan overlaps the eastern portion of the Coachella Valley planning boundary. BLM staff working on the Coachella Valley plan amendment shall coordinate with staff working on the NECO Plan to ensure consistency between the two plans.
- 4) The planning boundary for the West Mojave Plan overlaps the northwest portion of the Coachella Valley planning boundary. BLM staff working on the Coachella Valley plan amendment shall coordinate with staff working on the West Mojave Plan to ensure consistency between the two plans.
- 5) Any proposals promulgated through this Coachella Valley planning effort shall be in compliance with the California Desert Protection Act of 1994 and the Santa Rosa and San Jacinto Mountains National Monument Act of 2000.

Relationship to the Center for Biological Diversity, et al. Lawsuit (Case No. C-00-0927 WHA. U.S. District Court, Northern District of California, San Francisco Division).

The December 31, 2002 due date is related to the following lawsuit stipulations. 1) Paragraph 5 of *Stipulation and Proposed Order to Amend Prior Stipulations*, approved by U.S. District Court on January 31, 2002, amends the All Further Injunctive Relief Stipulation to require that "BLM will issue a Record of Decision regarding route designation in NECO, NEMO desert tortoise Desert Wildlife Management Areas [DWMAs], and the Coachella Valley by December 31, 2002." 2) Paragraph 15 amends the Bighorn Sheep Stipulation. This provision reads in part: "If the BLM Record of Decision for the Coachella Valley Multiple Species Habitat Conservation Plan Amendment (CVMSHCP) is not signed by December 31, 2002, BLM will close to vehicles and effectively block by January 1, 2003 all known routes providing unauthorized vehicle access onto the Dunn Road. In the interim, until a BLM Record of Decision for the plan is signed, BLM will, by April 1, 2002, install and maintain signs on all known roads providing access to the Dunn Road that indicate that access to the Dunn Road is prohibited."

In order to integrate route designation into the overall land management program, thereby providing meaningful public participation, the route designation process must proceed with the plan amendment, and both must be completed by December 31, 2002. Route designation

has always been part of the larger BLM plan amendment process, based on the public notice of June 28, 2000, public scoping meetings in July of 2000, and the April 12, 2002 notice addendum describing proposals, alternatives and issues being addressed. To treat route designation separately would require re-initiation of public scoping and the public process relative to the routes. The relationship of route designation to landscape level land management would be lost if the full plan amendment was not completed. For these reasons, route designation remains part of the larger BLM plan amendment process.

Absent the lawsuit requirements, the schedule for public review and decision making might have been delayed slightly in order to track very closely with the timing of the non-federal portion of the Coachella Valley Multiple Species Habitat Conservation Plan / Natural Communities Conservation Plan (CVMSHCP). The BLM has been working closely with the Coachella Valley Association of Governments, the Coachella Valley Mountains Conservancy and the local jurisdictions since 1996 to develop this Draft CDCA Plan Amendment in tandem with the Coachella Valley Multi-Species Habitat Conservation Plan, including coordination of alternatives in areas with intermingled or adjacent jurisdictions. The Coachella Valley CDCA plan amendment provides the framework to support the landscape-level approach to conservation and providing for community needs. Upon completion of the CVMSHCP, the BLM proposes to adopt the CVMSHCP as an activity (implementation) level plan, tiered to BLM's Coachella Valley CDCA plan amendment.

Trails Management Plan Guidance. The Santa Rosa and San Jacinto Mountains Trails Management Plan is being prepared under separate regulatory authority than the CDCA Plan Amendment for the Coachella Valley. This trails management plan is an element of the Coachella Valley Multiple Species Habitat Conservation Area Plan (CVMSHCP), and is an activity level (also known as implementation level) plan prepared in accordance with BLM Manual 8322 and is not subject to the 43 CFR 1610 planning regulations. A Record of Decision for the trails management plan will not be issued until completion of the CVMSHCP. At such time, the BLM portion of the approved trails management plan may be appealed to the Interior Board of Land Appeals in accordance with the regulations at 43 CFR 4.4. The trails management plan must be in conformance with and is tiered to the Coachella Valley CDCA plan amendment under Chapter 2, the section addressing "Hiking, Biking & Equestrian Trails."

ALTERNATIVES

A. Coachella Valley California Desert Conservation Area Plan Amendment

General Description of each Alternative. Alternatives A through C represent an array of options for each plan element, ranging from less restrictive land use (A) to more restrictive (C). Alternative D is the “no action” alternative. The BLM preferred alternative consists of an amalgamation of plan elements chosen from three alternatives (A through C). The preferred alternative for each plan element is highlighted in the “Summary of Alternatives” table ES-1.

As this is a plan amendment and not a revision, most of the guidance and land use plan decisions established in the *California Desert Conservation Area Plan* (1980 as amended) shall remain extant. The land use plan action alternatives identify specific proposed changes to the CDCA Plan, and are not meant to replace all decisions for a particular plan element.

Plan Goals Common to All Alternatives. The preferred alternative incorporates the following goals which are a supplement to the goals presented in the *California Desert Conservation Area Plan* (1980, as amended).

1. Ensure a balance of multiple use and sustainable public land uses with progress toward attaining healthy, properly functioning ecosystems.
2. Achieve recovery of listed species, and manage species to avoid future listings.
3. Maintain a network of motorized vehicle routes necessary to meet recreational and other needs while minimizing affects to air quality and other resource values.
4. Provide opportunities for off-highway vehicle free-play in the Coachella Valley where compliance with the Clean Air Act, Clean Water Act, the Endangered Species Act and other environmental laws will be attained.
5. Establish and maintain a network of hiking, biking and equestrian trails that provide opportunities for year-round recreation.
6. Make available public lands to support community infrastructure needs for southern California including energy production, mineral extraction and utilities, while minimizing resource use conflicts and promote species recovery in the plan area as a whole.
7. Work in collaboration with the Agua Caliente Band of Cahuilla Indians to manage the branded horses in the Indian Canyons effectively and efficiently.
8. Protect the free-flowing characteristics and outstandingly remarkable values of rivers that are eligible and may be suitable for Wild and Scenic River designation, and ensure their tentative classifications as “wild,” “scenic” or “recreational” are not affected.
9. Participate as a federal land management partner with the local Coachella Valley jurisdictions, and contribute to development and implementation of the Coachella Valley Multi-Species Habitat Conservation Plan.
10. Develop an overall strategy for managing the public lands which is adaptable over time based on the results of resource monitoring in order to effectively achieve the above goals.

Land Use Plan Alternatives. Table ES-1 presents a summary description of the various alternatives for each plan element. Please refer to the full text version of the Draft Coachella Valley CDCA Plan Amendment and draft environmental impact statement for a complete (and therefore more accurate) description of each alternative plan element. Not all of the plan elements have 4 different alternatives. Some plan elements have only three or two alternatives. The BLM preferred alternative consists of an amalgamation of plan elements chosen from Alternatives A through C. The preferred alternative for each plan element is highlighted in Table ES-1 “Summary of Alternatives.”

Plan Maintenance. Several of these CDCA Plan Amendment alternatives are contingent upon the conservation boundary established through the CVMSHCP. Most of the CVMSHCP conservation boundary has been delineated. Areas still under discussion between the local jurisdictions, CDFG and the USFWS do not involve BLM-managed public lands, such that BLM can definitively establish management direction for the BLM-managed public lands. The BLM would use the CVMSHCP preferred alternative conservation boundary delineated as of the date of the Record of Decision for the BLM CDCA Plan Amendment. The final CVMSHCP boundary would be updated in the CDCA Plan Amendment through plan maintenance (43 CFR 1610.5-4), as uses or restrictions on the BLM-managed public lands would not change. In the event that the CVMSHCP is not completed, the land use designations established for the BLM-managed lands through this CDCA Plan Amendment would remain extant, until such time a subsequent CDCA Plan Amendment was deemed necessary.

B. Santa Rosa and San Jacinto Mountains Trails Management Plan

Although the Santa Rosa and San Jacinto Mountains Trails Management Plan is being prepared as an element of the CVMSHCP, the BLM would like to ‘benchmark’ progress made to date through negotiations with the local jurisdictions and wildlife agencies, by including the draft trails management plan in this draft environmental impact statement. A separate Record of Decision (from that of the CDCA Plan Amendment) would be issued for the BLM portion of the trails management plan. Members of the public may appeal activity level decisions, to the Interior Board of Land Appeals in accordance with 43 CFR 4.4. The BLM preferred alternative for the trails management plan consists of Alternative B, highlighted in Table ES-2. Refer to the full text version of the draft trails management plan and draft environmental impact statement for a complete (and therefore more accurate) description of each trails alternative.

ENVIRONMENTAL CONSEQUENCES

A summary of the anticipated impacts of each of the alternatives for the Coachella Valley CDCA Plan and the trails management plan is presented in tables ES-3 and ES-4 respectively. Refer to the full text of version of this document for a complete description of potential impacts.

THE COLLABORATIVE PLANNING PROCESS

Throughout this planning process, the BLM has strived to create an open planning process, such that opportunities for public input are not be limited to the minimum requirements set

by the BLM planning regulations and National Environmental Policy Act of 1969 (NEPA). This planning process has also been deliberately designed to engage and involve local government, state agencies, other federal agencies, and Indian tribes to a very high level.

The Coachella Valley CDCA Plan Amendment and trails management plan are being developed in partnership with the local jurisdictions, State and Federal agencies, and private interests, in tandem with the multi-jurisdictional Coachella Valley Multi-Species Habitat Conservation Plan/Natural Communities Conservation Plan (CVMSHCP). There have been numerous public meetings since 1996, held jointly with the CVMSHCP, to discuss development of the Coachella Valley CDCA Plan Amendment and trails management plan. Policy Action Group meetings are being conducted monthly as part of the joint CDCA Plan Amendment/CVMSHCP planning effort. The Policy Action Group meetings are regularly attended by representatives of local jurisdictions, Native American Tribes, State and Federal government agencies, private interest groups and citizens. Numerous additional meetings and working group sessions were held to focus on issues of particular interest, such as development of a trails management plan and public input on inventories of motorized vehicle routes.

The BLM initiated government-to-government consultation with Indian Tribes by letter in November of 2000. This letter invited Native American participation and comment in the planning process. In March of 2002, as the planning document evolved and potential land management actions became more clearly defined, a second letter was sent to update tribes and to continue government-to-government consultation. Letters were sent to the following Tribes: Agua Caliente Band of Cahuilla Indians, Augustine Band of Mission Indians, Cabazon Band of Mission Indians, Cahuilla Band of Indians, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Los Coyotes Band of Indians, Morongo Band of Mission Indians, Ramona Band of Mission Indians, Santa Rosa Band of Mission Indians, Torres-Martinez Band of Desert Cahuilla Indians, and Twenty-Nine Palms Band of Mission Indians. Follow-up discussions were conducted with representatives of the Agua Caliente, Augustine, Morongo, and Fort Mojave groups. The Bureau of Land Management also requested a record search of the sacred lands files of the Native American Heritage Commission.

BLM has been informally consulting with the US Fish and Wildlife Service and the California Department of Fish and Game since 1996 as the Draft CDCA Plan Amendment/ EIS was being developed in coordination with the CVMSHCP Plan. Formal consultation for the Coachella Valley CDCA Plan Amendment will be initiated June, 2002.

BLM is also in consultation with the California State Historic Preservation Officer (SHPO) under the 1998 State Protocol Agreement between the California State Director of the Bureau of Land Management (BLM) and the California State Historic Preservation Office. An early notification and invitation to participate in identification of issues was submitted to the SHPO's office in September of 2001. BLM met with the State Historic Preservation Officer in Sacramento in February, 2002 to facilitate consensus between the agencies on the approach taken to address cultural resources under the plan amendment. During the meeting, BLM briefed the SHPO staff on the planning effort and presented a proposal for completing field inventory in support of the planning effort. This proposal was submitted formally to SHPO on March 25, 2002. BLM will submit draft and final plans to SHPO for review and comment.

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<u>Wild and Scenic Rivers</u> A total of 20.3 miles of river segments on BLM-managed lands were found eligible for inclusion into the National Wild and Scenic River System. These river segments include portions of Whitewater Canyon, Mission Creek channel, and Palm Canyon. BLM-managed river segments in Little and Big Morongo Canyons, and Whitewater Canyon south of Bonnie Bell were assessed and determined to be ineligible for inclusion.			<u>Wild and Scenic Rivers</u> No recommendations would be made at this time.
<u>Visual Resource Management</u> Visual Resource Management (VRM) classifications would be assigned as follows: (1) Wilderness as VRM Class 1, (2) ACECs and the Santa Rosa and San Jacinto Mountains National Monument as Class 2 (except for wilderness within the monument), (3) BLM-managed lands within CVMSHCP conservation areas, except for wind energy facilities, and sand and gravel mining sites as Class 2, (4) BLM-managed lands associated with existing and future development of wind energy facilities, and sand and gravel mining sites, as Class 4, (5) Remaining BLM-managed lands, other than those in the NECO overlap area as Class 4, and (6) the NECO overlap area would remain unassigned.			<u>Visual Resource Management</u> No VRM classifications would be assigned at this time. Wilderness would be managed consistent with VRM Class 1 objectives.
<u>Land Health Standards</u> Adopt regional land health standards, addressing soils, native species, riparian/wetland/ stream function, and water quality. These regional land health standards would apply to all BLM lands and programs, and would be implemented through terms and conditions of permits, leases and other authorizations, actions, resource monitoring, assessments undertaken in accordance with BLM's land use plans.			<u>Land Health Standards</u> Adopt the National Fallback Standards for use as regional land health standards, addressing soils, riparian/wetland, stream function and native species.
<u>Air Quality Management Strategy</u> 1) Install sand fencing to reduce PM10 emissions and maintain habitat for sand dependent species; 2) Authorized uses would be in conformance with the Coachella Valley PM10 State Implementation Plan	<u>Air Quality Management Strategy</u> 1) Reduce the number of unpaved routes upwind of sensitive receptors. 2) Manage unauthorized off-road use and provide opportunities for OHV use away from sensitive receptors; 3) Install sand fencing to reduce PM10 emissions and maintain habitat for sand dependent species; 4) Authorized uses would be in conformance with the Coachella Valley PM10 State Implementation Plan		<u>Air Quality Management Strategy</u> Authorized uses would be in conformance with the Coachella Valley PM10 State Implementation Plan

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p><u>Multiple Use Classification</u></p> <p>Classify wilderness areas as Class "C" (Controlled Use). Classify BLM-managed lands within conservation areas and outside wilderness as Class "L" (Limited Use). Classify BLM-managed lands outside conservation areas as Class "M" (Moderate Use). Classify BLM-managed lands within designated off-highway vehicle open areas, and existing sand and gravel mining areas as Class "I" (Intensive Use).</p>		<p><u>Multiple Use Classification</u></p> <p>Same as Alternatives A-B except no Class "I" lands would be designated.</p>	<p><u>Multiple Use Classification</u></p> <p>BLM multiple-use classifications would remain unchanged.</p>
<p><u>Habitat Conservation Objectives</u></p> <p>Same as Alternative D.</p>	<p><u>Habitat Conservation Objectives</u></p> <p>Establish conservation objectives based on the following habitat types: (1) sand dunes and sand fields, (2) desert scrub communities, (3) chaparral communities, (4) desert alkali scrub communities, (5) marsh communities, (6) dry wash woodland and mesquite communities, (7) riparian communities, and (8) woodland and forest communities.</p>		<p><u>Habitat Conservation Objectives</u></p> <p>Guidelines provided in the CDCA Plan, as amended would be used to determine allowable uses within conservation areas.</p>
<p><u>Fire Management</u></p> <p>Same as Alternative D.</p>	<p><u>Fire Management</u></p> <p>Fire Management Category A. The following communities are areas where fire would not be desired at all: sand dunes and sand fields.</p> <p>Fire Management Category B. The following vegetation communities are areas where wildfire is not desired: (1) desert scrub, (2) desert alkali scrub, (3) marsh, (4) dry wash woodland, pinyon-juniper woodland and mesquite, and (5) riparian areas. Prescribed fire may be utilized as a resource management tool in very select situations, for example to effectively manage exotic vegetation.</p> <p>Fire Management Category C. (1) Oak woodlands and forest communities and (2) chaparral communities are areas where wildland fire (including prescribed burning) may be allowed, subject to the following constraints: (1) emphasize protection of life and property, especially trail users and montane communities, (2) evaluate potential beneficial or adverse effects on threatened and endangered species habitat, especially endemic species, (3) evaluate potential for adverse effects to significant or sensitive cultural and other natural resources, (4) promote mosaic pattern of vegetation resulting from different fire histories within the larger landscape, (5) protect areas so that they do not burn at less than 15 year intervals.</p>		<p><u>Fire Management</u></p> <p>No habitats would be categorized at this time. Manage fire in accordance with CDCA Plan (1980, as amended) and the District-wide Fire Management Plan.</p>

Table ES-1: Summary of CDCA Plan Amendment Alternatives			
Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p>Special Area Designations</p> <p>Designate BLM-managed lands within the CVMSHCP</p> <p>conservation areas which are outside existing ACECs, Wilderness Areas, National Monuments and freeway interchanges in the NECO overlap area as the Coachella Valley Wildlife Habitat Management Area (WHMA). Existing ACEC boundaries would remain unchanged.</p>	<p>Special Area Designations</p> <p>Include Dos Palmas CVMSHCP conservation sub-area in the Dos Palmas ACEC. Designate Upper Mission Creek conservation sub-area as an ACEC. Designate remaining BLM-managed lands within the CVMSHCP conservation areas and outside ACECs and existing Wilderness Areas and National Monuments as the Coachella Valley WHMA.</p>	<p>Special Area Designations</p> <p>Designate BLM-managed lands within the CVMSHCP conservation areas, and outside existing ACECs, Wilderness Areas and National Monuments as the Coachella Valley ACEC.</p>	<p>Special Area Designations</p> <p>No BLM-managed lands would be given additional designations beyond those currently listed in the CDCA Plan as amended and those established by law. Existing ACEC boundaries shall remain unchanged.</p>
<p>Land Tenure:</p> <p><u>Exchange & Sale Criteria</u></p> <p>Same as Alternative D.</p>	<p>Land Tenure: <u>Exchange & Sale Criteria</u></p> <p>BLM lands in the Coachella Valley would generally be retained in public ownership. Land exchanges and sales may be considered if they would: 1) Facilitate effective and efficient management of conservation areas; 2) Coordinated with the local jurisdictions; 3) Benefit the Coachella Valley conservation areas by directly augmenting public ownership in a sensitive area or diverting intensive uses away from sensitive areas; 4) Not remove endemic species nor rare habitat types from conservation management; 5) Not dispose of eligible historic properties from public ownership except for transfer to Native American Tribes of Native American historic properties; and 6) Not eliminate a significant public benefit.</p>		<p>Land Tenure:</p> <p><u>Exchange & Sale Criteria</u></p> <p>Public land disposal will be considered on a case-by-case basis in accordance with the CDCA Plan (1980 as amended). Class C, L and I lands may be exchanged, but not sold.</p>
<p>Land Tenure: <u>Acquisition Criteria</u></p> <p>Same as Alternative D.</p>	<p>Land Tenure: <u>Acquisition Criteria</u></p> <p>Acquisition proposals which meet the following criteria may be considered: 1) Be acquired from willing sellers only; 2) Be coordinated with the local jurisdictions; 3) Benefit the Coachella Valley conservation areas by augmenting public ownership in a sensitive area or diverting intensive uses away from sensitive areas; or 4) Improve the presence of a variety of biotic or abiotic habitat components under conservation management.</p>		<p>Land Tenure: <u>Acquisition Criteria</u></p> <p>Acquisitions would be considered on a case-by-case basis in accordance with the CDCA Plan 1980 as amended.</p>

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
Management of Acquired and Formerly Withdrawn Lands			
Lands acquired by purchase, donation or lands removed from withdrawal status shall be managed in accordance with the CDCA Plan, as amended and the applicable land and mineral laws upon issuance of an opening order published in the <i>Federal Register</i> . Lands located within the boundaries of ACECs or any other area having an administrative designation established through the land use planning process shall become part of the area within which they are located and managed accordingly upon issuance of the opening order.			
<u>Communication Sites & Utilities</u> Rights-of-way for new and renewals of windparks, communications sites, and utilities would be considered within conservation areas, if habitat conservation objectives could be met using appropriate mitigation measures..	<u>Communication Sites & Utilities</u> Windpark development would be permitted in designated areas and new towers within existing communication sites on a space available basis, consistent with habitat conservation objectives using appropriate mitigation measures. Proposed utilities within designated corridors and within conservation areas may be considered, consistent with the habitat conservation objectives.	<u>Communication Sites & Utilities</u> No new communication sites nor windparks within CVMSHCP conservation areas. Renewals would be considered on a case-by-case basis consistent with habitat conservation objectives. Retire inactive windpark sites. Proposed utilities within designated utility corridors and within conservation areas may be considered, consistent with the habitat conservation objectives.	<u>Communication Sites & Utilities</u> Rights-of-way for new windparks, renewals of existing windparks, communications sites, and utilities will be considered on a space available basis in conformance with CDCA Plan, as amended.
<u>Sand and Gravel Mining</u> Saleable mineral material extraction would be allowed within CVMSHCP conservation areas and outside of Areas of Critical Environmental Concern, if habitat conservation objectives could be met.	<u>Sand and Gravel Mining</u> Within conservation areas, mining would be restricted to State designated mineral resource zones, and may be allowed if habitat conservation objectives can be met. Outside the conservation areas, mining may be considered consistent with federal laws and regulations.	<u>Sand and Gravel Mining</u> BLM lands within the CVMSHCP conservation areas would be closed to saleable mineral material extraction.	<u>Sand and Gravel Mining</u> Saleable mining actions would be considered on a case-by-case basis in accordance with the CDCA Plan (1980 as amended).

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p><u>Livestock Grazing</u> Discontinue grazing in White-water Canyon allotment pending completion of a study within the next 10 years that assesses livestock grazing compatibility with conservation of listed species, riparian values, and use/access to intermingled private lands. Upon study completion, conduct NEPA analysis of alternatives intended to conserve and provide for these values consistent with the study. Issue a grazing decision that implements compatible management provisions.</p>	<p><u>Livestock Grazing</u> Retire that portion of the Whitewater Canyon grazing allotment north of the San Bernardino/Riverside County Line. Adjust season of use and grazing capacity accordingly.</p>	<p><u>Livestock Grazing</u> Retire the entire Whitewater Canyon grazing allotment.</p>	<p><u>Livestock Grazing</u> Current management of the Whitewater Canyon grazing allotment as provided in the CDCA Plan, as amended.</p>
<p><u>Wild Horse and Burro Program</u> Retain Palm Canyon and Morongo Herd Management Area (HMA) designations. Maintain levels set in accordance with current CDCA Plan, as amended. Establish Palm Canyon HMA as a grazing allotment for branded horses.</p>	<p><u>Wild Horse and Burro Program</u> Retire Palm Canyon & Morongo HMAs. BLM parcels within and adjacent to the Palm Canyon HMA (T.5 S., R.4 E.) and T.4 S., R. 4 E. would be transferred to the Agua Caliente Tribe via land exchange, in accordance with the Monument Act of 2000. Amend existing MOU to allow BLM to provide management assistance for horses on tribal lands.</p>	<p><u>Wild Horse and Burro Program</u> Retire Palm Canyon and Morongo HMAs. Remove existing animals from BLM-managed lands.</p>	<p><u>Wild Horse and Burro Program</u> Retain Palm Canyon and Morongo and Herd Management Areas (HMA) designations. Levels set at six and 16 animals, respectively in accordance with current CDCA Plan, as amended.</p>

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p><u>Motorized-Vehicle Area Designations</u> Designate Indio Hills, Drop 31, Windy Point, and Iron Door as areas "open" to motorized vehicles. Manage Drop 31 in accordance with objectives outlined below for the Meccapocopia Special Recreation Management Area. Indian Avenue Preserve and Willow Hole-Edom Hill would be designated "closed." Outside existing area closures, all other public lands within the CVMSHCP conservation areas would remain "limited."</p>	<p><u>Motorized-Vehicle Area Designations</u> Establish Drop 31 as an OHV Open Area; manage in accordance with objectives outlined below for the Meccapocopia Special Recreation Management Area. Windy Point south of Highway 111 would be designated "closed." Indian Avenue Preserve and Willow Hole-Edom Hill would be designated "closed." The expanded area of Dos Palmas ACEC would be additionally be designated "closed." All other BLM-managed public lands within the CVMSHCP conservation areas and outside existing area closures would remain as "limited."</p> <p>Work with the Off-Highway Motor Vehicle Recreation Division of the California Department of Parks and Recreation to establish a vehicle free-play area north of Interstate 10 and east of Dillon Road on acquired lands as an outlet and opportunity for displaced off-highway vehicle users.</p>	<p><u>Motorized-Vehicle Area Designations</u> Windy Point south of Highway 111 would be designated "closed." Indian Avenue Preserve and Willow Hole-Edom Hill would be designated "closed." All other BLM-managed public lands within the CVMSHCP conservation areas and outside existing area closures would remain as "limited."</p>	<p><u>Motorized-Vehicle Area Designations</u> No new area closures nor off-highway vehicle open areas would be established at this time. Existing area closures within the Big Morongo Canyon ACEC, and Dos Palmas ACEC would remain unchanged. Wilderness areas are closed to casual motorized-vehicle use by statute.</p>

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p><u>Motorized-Vehicle Access: Route Designations</u></p> <p>71 miles of existing routes outside areas closed to casual motorized-vehicle use would be designated as "open." Maintain the public route network as needed and seek legal access across private land parcels from willing sellers in areas designated for public recreation. Manage vehicle access in the Dunn Road area primarily for administrative purposes such as flood control, law enforcement, search and rescue, fire control, and permitted uses such as research and commercial recreation, subject to private landowner permission.</p>	<p><u>Motorized-Vehicle Access: Route Designations</u></p> <p>45 miles of routes would be designated open, consistent with the habitat conservation objectives and the air quality management strategy. Redundant routes which would be "closed" to minimize air quality impacts. Off-road travel on public lands would not be allowed except in designated "open" areas. Short recreational spur roads east of the Indio air quality monitoring station would be closed.</p> <p>Maintain the public route network and seek legal access across private land parcels from willing sellers in areas designated for public recreation. Manage vehicle access in the Dunn Road area for administrative purposes such as flood control, law enforcement, search and rescue, and fire control, as well as controlled levels of permitted uses such as research and commercial recreation, subject to private landowner permission.</p>	<p><u>Motorized-Vehicle Access: Route Designations</u></p> <p>25 miles of routes would be designated open. Maintain the public route network as needed and seek legal access across private land parcels from willing sellers in areas needed to maintain the route network. Manage vehicle access in the Dunn Road area in a manner that allows routes to naturally reclaim over time. Where the routes are passable, allow administrative vehicle access for flood control, law enforcement, search and rescue, and fire control.</p>	<p><u>Motorized-Vehicle Access: Route Designations</u></p> <p>Motorized-vehicle access would continue on 71 miles of existing routes outside existing area closures.</p> <p>Maintain the public route network as needed and seek legal access across private land parcels from willing sellers in areas designated for public recreation. Manage vehicle access in the Dunn Road area for administrative purposes such as flood control, law enforcement, search and rescue, fire control, research and commercial recreational uses.</p>
	Existing gates would be		

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
	<p>maintained on Dunn Road and new gates would be installed to preclude unauthorized access from the Royal Carrizo area. Public land portions of Dunn Road, Dry Wash Road, and the access route from Royal Carrizo would be closed except for administrative and permitted access until bighorn sheep populations recover. The designation of these roads may be re-evaluated at that time. Permitted use may include limited research and recreational access by permit, contingent on acquiring access across private lands and compliance with the terms of a biological opinion. Motorized commercial recreational access would be confined to the fall months and both activities and the areas to be visited would be designed to avoid conflicts with bighorn sheep recovery. Legal access to landowners and agencies may be provided through a right-of-way grant with terms and conditions based upon a biological opinion. Temporary landowner access may be authorized by permit.</p>		

Table ES-1: Summary of CDCA Plan Amendment Alternatives			
Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p><u>Special Recreation Mgt Area</u> Establish the Meccacopia SRMA which includes the Mecca Hills and Orocopia Mountains Wildernesses, Drop 31 "open" area, and Red Cloud Mine Road. Develop a management strategy through preparation of a management plan which protects wilderness values, and enhances quality of motorized and non-motorized vehicle recreation.</p>	<p><u>Special Recreation Mgt. Area</u> This alternative is similar to Alternative A. In addition, and as part of the overall management strategy, establish wildlife watering zones by constructing and maintaining additional water sources with limited vehicle access to discourage bighorn sheep from using the Coachella Canal and to minimize conflicts with off-highway vehicle users. Development of water sources inside wilderness areas would be consistent with limits and guidelines established in the NECO Plan. Additional guzzlers in wilderness may be considered upon completion of the relevant meta-population plan by CDFG.. Wildlife water sources outside wilderness may be developed based on analysis and approval of site specific proposals in consultation with CDFG.</p>	<p><u>Special Recreation Mgt. Area</u> Establish the Meccacopia SRMA which includes the Mecca Hills and Orocopia Mountains Wildernesses, and Red Cloud Mine Road. Develop a management strategy through preparation of a management plan which protects wilderness values, and enhances quality of motorized and non-motorized vehicle recreation. Close areas where vehicle use is significantly limiting or preventing wildlife access to water.</p>	<p><u>Special Recreation Mgt. Area</u> No SRMA would be designated at this time. Management would continue based on existing uses and designations.</p>
<p><u>Recreation: Stopping, Parking, and Vehicle Camping</u> Stopping, parking, and vehicle camping would be allowed within 100 feet from the centerline of an approved route except where fenced.</p> <p>This exception applies to all alternatives: Where wilderness boundaries are coincident with approved routes, stopping, parking, and vehicle camping must remain outside of wilderness boundary.</p>		<p><u>Recreation: Stopping, Parking, and Vehicle Camping</u> would be allowed within 300 feet from the centerline of an approved route except within ACECs and conservation areas where the limit would be 30 feet for stopping and parking. No camping within CVMShCP conservation areas..</p>	<p><u>Recreation: Stopping, Parking, and Vehicle Camping</u> Stopping, parking, and vehicle camping would be allowed within 300 feet of a route of travel except within ACECs where the limit would be 100 feet.</p>

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p><u>Peninsular Ranges Bighorn Sheep Recovery Strategy</u></p> <p>Adopt a recovery strategy for Peninsular Ranges bighorn sheep habitat on BLM-administered public lands. As part of that strategy, the following are common to all alternatives:</p> <ul style="list-style-type: none"> ▶ Acquire, or exchange to acquire, bighorn sheep habitat from willing landowners. ▶ Manage aircraft activities to reduce or eliminate habitat fragmentation or interference with bighorn sheep resource use patterns. A working group of the Desert Managers Group has been established to address interagency coordination issues on an ongoing basis. ▶ Develop and implement education and public awareness programs. ▶ Reduce or eliminate wild horse populations from bighorn sheep habitat. ▶ Implement a fire management plan in fire adapted habitats to help maintain bighorn sheep habitat. ▶ Manage road use to reduce or eliminate habitat fragmentation or interference with bighorn sheep resource use patterns. ▶ Participate in the development of an interagency trails management plan for the Santa Rosa and San Jacinto Mountains. The goal of this trails management plan would be to provide for reasonable opportunities for recreational trail use while facilitating recovery of Peninsular Ranges bighorn sheep. Actions developed through this trails plan would be subject to change through a multi-jurisdictional adaptive management and monitoring program. Until the trails plan is finalized, the terms of the interim biological evaluation filed with the U.S. Fish and Wildlife Service on January 31, 2001, and as amended on February 6, 2001 to reflect designation of critical habitat, would apply. 			
<p><u>Bighorn Sheep Recovery Strategy (cont.)</u></p> <p>Approach recovery by emphasizing restoration of natural resources that support the sheep's basic physical and biological needs. Make public lands available for testing other measures if they are proposed by the USFWS or CDFG.</p> <ul style="list-style-type: none"> ▶ Maintain existing water sources and provide additional water sources using methods that restore natural sources (e.g. tamarisk removal). Installation of artificial waters would not be considered until restoration efforts are substantially complete. ▶ Construct fences to exclude bighorn sheep from areas 	<p><u>Bighorn Sheep Recovery Strategy (cont.)</u></p> <p>Approach recovery by emphasizing reduction in overall levels of disturbance distributed as equitably as possible across all land uses and testing measures to address levels of mortality and augment population, while providing more resources to support the sheep's basic physical and biological needs.</p> <ul style="list-style-type: none"> ▶ Maintain existing water sources and provide additional water sources on public lands. Maintaining water would involve water source restoration, primarily through tamarisk removal. Installation of artificial waters would be conducted in carefully selected 	<p><u>Bighorn Sheep Recovery Strategy (cont.)</u></p> <p>Approach recovery by emphasizing natural processes with very limited management intervention, except to provide more water.</p> <ul style="list-style-type: none"> ▶ Concentrate efforts to provide additional water sources on public lands through installation of artificial waters. ▶ Construct fences across public lands to exclude bighorn sheep from urban area when public lands are a small but necessary part of completing a fence across other ownerships. ▶ Research and monitoring activities would be allowed. Review and analysis would be on a case-by case basis, 	<p><u>Bighorn Sheep Recovery Strategy (cont.)</u></p> <p>Continuation of current management in accordance with the CDCA Plan (1980, as amended).</p> <ul style="list-style-type: none"> ▶ Continue efforts to control tamarisk. Artificial waters may be considered on a case-by-case basis ▶ Fence construction may be considered on a case-by-case basis. ▶ Research and monitoring proposals may be considered on a case-by-case basis. ▶ Public lands may be considered for reintroduction, augmentation, or predator control after analysis and public comment.

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p>which may be used as urban sources of food and water.</p> <ul style="list-style-type: none"> ▶ Permit research activities that require helicopter use and direct handling or contact with sheep, in consultation with USFWS and CDFG. (1) helicopter use would be allowed during lambing season and in BLM wilderness areas, (2) helicopters would be routinely used to retrieve dead sheep and lambs during and outside the lambing season, instead of relying primarily on ground searches, and (3) theoretical/academic research would be allowed, including manipulative methods that included intensional disturbances. ▶ Prepare an annual report describing the results of bighorn sheep monitoring and research activities on public land to support adaptive management, enhance understanding of human/sheep interactions, understand habitat relationships, understand predator relationships, and clarify factors affecting population trends. ▶ Make public lands available for predator control if proposed by USFWS and CDFG. ▶ Make public lands available for 	<p>locations between Highway 74 and Palm Canyon.</p> <ul style="list-style-type: none"> ▶ Construct fences to exclude bighorn sheep from urban area where there is clear evidence of regular and repeated movement of sheep into developed urban areas, but only once adequate water sources are assured above the proposed fence alignment. ▶ BLM will seek to reduce impacts resulting from all land uses including trail use, motorized vehicles, permitted uses, utility corridors, communication sites, a variety of casual uses, and research. The aforementioned trails management plan includes a more detailed strategy to reduce disturbances to bighorn sheep from casual and permitted trail uses. This CDCA plan amendment addresses motorized vehicle access which includes all forms of motorized vehicle use, including closed or limited access for certain routes. Permitted uses would be subject to environmental review and conformance with the habitat conservation objectives established through the CDCA plan amendment, as well as endangered species 	<p>contingent on the following parameters: (a) No more than 15 sheep would be captured on the BLM lands; (b) No captures would be allowed in designated Wilderness Areas on BLM land. (c) No lambs would be captured during the lambing season on BLM land to reduce disturbance to ewes and lambs during the lambing season. (d) No more than 5 dead sheep would be retrieved by helicopter from the BLM lands during the lambing season (January 1 -June 30).</p> <ul style="list-style-type: none"> ▶ Consider permitting predator control on public lands only with substantial evidence tying significant bighorn sheep predation losses to an individual animal. ▶ Make public lands available for reintroduction and augmentation activities. Work in consultation with USFWS and CDFG. 	

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p>reintroduction and augmentation activities, in consultation with USFWS and CDFG.</p>	<p>consultation under the Endangered Species Act if the use would likely result in a may affect determination to bighorn sheep or critical habitat. No actions for mining, communication sites, grazing allotments, or utility corridors are proposed through the CDCA plan amendment because the activities are not located within essential habitat for Peninsular Ranges bighorn sheep within the planning area.</p> <ul style="list-style-type: none"> ▶ Review research and monitoring proposals and annual reports describing the results of bighorn sheep monitoring and research activities on public land to ensure that the research supports the recovery of the sheep. Permits and proposals for research on public land may be subject to 30-day public review and comment. ▶ Work with the USFWS & CDFG to develop and implement research and monitoring techniques that are less reliant on helicopters and/or direct handling of wild sheep. ▶ Work with USFWS & CDFG to develop actions to implement a five year study to examine the role of Mountain lion predation 		

Table ES-1: Summary of CDCA Plan Amendment Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
	<p>in determining the population dynamics of bighorn sheep, and develop appropriate management options between Highway 74 and Palm Canyon.</p> <ul style="list-style-type: none"> ▶ Work with USFWS & CDFG to develop actions to safely test the effectiveness of reintroduction and augmentation activities on public lands in the vicinity of Snow Creek on the north side of San Jacinto Mountain. 		
<p><u>Hiking, Biking & Equestrian Trails</u></p> <p>Manage trail segments across public lands in coordination with members of the public, local jurisdictions, State and other Federal agencies to provide for a year-round suite of non-motorized recreation opportunities on interconnected trails in the Coachella Valley and surrounding mountains. Non-motorized uses of the public lands within the Coachella Valley planning area may be limited, including area and trail closures, as needed to protect sensitive resources. New trails which avoid impacts to sensitive resources and are developed in coordination with the community may be allowed.</p>			<p><u>Hiking, Biking & Equestrian Trails</u></p> <p>Non-motorized uses of the public lands and development of new trails would be allowed, in accordance with Federal law and regulation.</p>

Table ES-2: Summary of Trails Management Plan Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p><u>Trail Use</u></p> <ul style="list-style-type: none"> Individuals would be requested to voluntarily not use selected trails within essential habitat from Feb. 15 to Sept. 30. Other trails within essential sheep habitat would be available year-round. Trails outside sheep habitat would be open year-round Trail use would be monitored 	<p><u>Trail Use</u></p> <ul style="list-style-type: none"> Trail use within Seasonal Trail Areas would be prohibited from Jan. 15 to June 30, except for the Art Smith and Boo Hoff Trails which would be available 2 days per week from Jan. 15 to Feb. 15 and May 1 to June 30. Such use of Art Smith would discontinue upon completion of the Palm Desert to La Quinta connector trail. Trails near sheep watering sources will be closed from July 1 to Sept. 30. Use of self-issue free permits at major trail heads would be required from Oct. 1 to Jan. 14 Trails outside sheep habitat would be open year-round. The Seasonal Trail Area closures would be phased in, as new perimeter trails are constructed, and not to exceed nine years. Sheep ambassadors would continue to provide trail monitoring and outreach to trail users. The trails management plan would be reviewed annually and adjusted by mutual consent of the Trails Management 	<p><u>Trail Use</u></p> <p>Major trails in essential sheep habitat would be closed Jan. 1 to June 30. Trails near sheep watering sources would also be closed from July 1 to Sept. 30.</p>	<p><u>Trail Use</u></p> <p>All trails would be open year-round for non-motorized activities.</p>

Table ES-2: Summary of Trails Management Plan Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<u>Cross-Country Travel</u> Individuals would be requested to voluntarily refrain from cross-country travel in essential sheep habitat from Feb.15 to Sept.30.	<u>Cross-Country Travel</u> Cross-country travel would be prohibited in essential sheep habitat from Jan.15 to Sept. 30.	<u>Cross-Country Travel</u> Cross-country travel would be prohibited year-round in essential sheep habitat.	<u>Cross-Country Travel</u> Cross-country travel would be allowed year-round.
<u>Camping</u> Individuals would be requested to voluntarily refrain from camping in essential sheep habitat from Feb. 15 to Sept. 30, except along trails not subject to the voluntary trail avoidance program. No camping within 1/4 mile of water sources.	<u>Camping</u> Camping would be prohibited in essential sheep habitat from Jan. 15 to Sept.30. Campers would be required to obtain a free-use permit from Oct. 1 to Jan. 14. Camping would be prohibited within 1/4 mile of water sources.	<u>Camping</u> Camping would be prohibited year-round in essential bighorn sheep habitat.	<u>Camping</u> Camping would be allowed year-round.
<u>Dogs</u> Same as Alternative A	<u>Dogs</u> In essential sheep habitat, dogs allowed only in designated areas and must be kept under restraint. Designated areas include: 1) area west of Cathedral City Cove, 2) Homme-Adams Park and adjacent lands in Palm Desert, 3) an area south of La Quinta Cove. The following are exempt from the prohibition: 1) seeing-eye dogs, 2) dogs assisting law enforcement or search & rescue operations, and 3) dogs kept in vehicles.	<u>Dogs</u> Same as Alternative A.	<u>Dogs</u> Dogs would be allowed, subject to existing regulations.

Table ES-2: Summary of Trails Management Plan Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<u>New Trail Development</u> Proposals for new trails would be considered on a case-by-case basis. Trail construction in essential sheep habitat may only occur Oct.1 to Feb.14.	<u>New Trail Development</u> <ul style="list-style-type: none"> ▶ New trails developed within perimeter corridors would be available year-round. ▶ Other new trails would be assessed on a case-by-case basis. Trail construction may only occur July 1 to Jan. 14. ▶ A new trail linking Palm Desert to La Quinta would be built, subject to seasonal closure. 	<u>New Trail Development</u> New trails within identified perimeter corridors may be considered. Trail construction may only occur Oct. 1 to Dec.31	<u>New Trail Development</u> Same as Alternative A.
<u>Trail Rerouting</u> Trails within essential sheep habitat would be assessed on a case-by-case basis, with application of specified criteria to protect resource values. Trail re-routing in essential sheep habitat may only occur Oct.1 to Feb.14.	<u>Trail Rerouting</u> Trails would be rerouted to protect sensitive resource values. Trail re-routing in essential sheep habitat may only occur between Oct. 1 to Jan. 14. Outside sheep habitat, proposed trail re-routes would be assessed on a case-by-case basis.	<u>Trail Rerouting</u> Trails would be rerouted to protect sensitive resource values. Trail re-routing in essential sheep habitat may only occur between Oct. 1 to Dec.31	<u>Trail Rerouting</u> Proposals for trail reroutes would be considered on a case-by-case basis.
<u>Trail Decommission and Removal</u> Proposals to decommission and remove trails would be considered on a case-by-case basis. Trail removal in essential sheep habitat may only occur Oct.1 to Feb.14.	<u>Trail Decommission and Removal</u> Redundant trails in the Murray Hill complex and other areas would be identified, based on certain criteria, and removed. Trail removal would only occur between Oct.1 to Jan. 14.	<u>Trail Decommission and Removal</u> Redundant trails in the Murray Hill complex and other areas would be identified, based on certain criteria, and removed. Trail removal would only occur between Oct. 1 to Dec.31.	<u>Trail Decommission and Removal</u> Same as Alternative A.
<u>Murray Hill Facilities</u> Picnic tables and equestrian hitching posts at the summit of Murray Hill would remain in place.	<u>Murray Hill Facilities</u> Picnic tables and equestrian hitching posts at the summit of Murray Hill would be relocated outside the Seasonal Trail Area. Relocation would occur only from Oct. 1 to Jan.14.	<u>Murray Hill Facilities</u> Picnic tables and equestrian hitching posts at the summit of Murray Hill would be removed and not relocated within essential bighorn sheep habitat.	<u>Murray Hill Facilities</u> Same as Alternative A.

Table ES-2: Summary of Trails Management Plan Alternatives				
Alternative A	Alternative B	Alternative C	Alternative D: No Action	
<p><u>Noncommercial, Noncompetitive Organized Group Activities</u></p> <ul style="list-style-type: none">▶ Noncommercial, noncompetitive organized groups would be subject to the same voluntary Seasonal Trail Area avoidance outlined above.▶ Groups of 10 to 24 individuals would be requested to obtain a free permit for activities in essential sheep habitat Jan.1 to Dec.31.▶ Groups of 25 or more require a Special Recreation Permit, and may not use voluntary avoidance areas.▶ Group size in the Santa Rosa Wilderness would be requested to be 15 individuals or less, with ½ mile separation between groups.	<p><u>Noncommercial, Noncompetitive Organized Group Activities</u></p> <ul style="list-style-type: none">▶ Noncommercial, noncompetitive organized groups would be subject to the Seasonal Trail Area restrictions outlined above.▶ Groups of 10 to 24 individuals would be required to obtain a free permit for activities in essential sheep habitat year-round.▶ Groups of 25 or more require a Special Recreation Permit.▶ Group size in the Santa Rosa Wilderness would be 15 individuals or less with half mile separation between groups.	<p><u>Noncommercial, Noncompetitive Organized Group Activities</u></p> <ul style="list-style-type: none">▶ Noncommercial, noncompetitive organized groups would be subject to the Seasonal Trail closures outlined above.▶ Groups of 10 to 24 individuals would be required to obtain a free permit for activities in essential sheep habitat year-round.▶ Groups of 25 or more require a Special Recreation Permit.▶ Group size in the Santa Rosa Wilderness would be 15 individuals or less with two-mile separation between groups.	<p><u>Noncommercial, Noncompetitive Organized Group Activities</u></p> <p>Noncommercial, noncompetitive organized groups would be allowed, though a special recreation permit may be required for use of BLM-managed lands.</p>	
<p><u>Non-motorized Commercial Recreation Activities</u></p> <p>Commercial recreation requires issuance of a special recreation permit, and may not use voluntary trail avoidance areas.</p>	<p><u>Non-motorized Commercial Recreation Activities</u></p> <p>Non-motorized commercial recreation activities may be permitted, subject to the same Seasonal Trail Area restrictions outlined above and outside voluntary trail avoidance areas.</p>	<p><u>Non-motorized Commercial Recreation Activities</u></p> <p>Non-motorized commercial recreation may be permitted, subject to the same Seasonal Trail Area closures outlined above.</p>	<p><u>Non-motorized Commercial Recreation Activities</u></p> <p>Non-motorized commercial recreation activities may be allowed. A special recreation permit issued through existing regulatory processes would be required for such activities on BLM-managed lands, except when exemptions apply.</p>	

Table ES-2: Summary of Trails Management Plan Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<u>Motorized Commercial Recreation Activities</u> Motorized commercial recreation activities would be prohibited year-round in essential bighorn sheep habitat except on Dunn Road where permits may be issued Oct. 1 to Feb. 14, subject to private landowner permission.	<u>Motorized Commercial Recreation Activities</u> Motorized commercial recreation activities would be prohibited year-round in essential bighorn sheep habitat except on selected portions of Dunn Road where permits may be issued Oct. 1 to Jan. 14, subject to private landowner permission.	<u>Motorized Commercial Recreation Activities</u> Motorized commercial recreation activities would be prohibited year-round in essential bighorn sheep habitat.	<u>Motorized Commercial Recreation Activities</u> Motorized commercial recreation activities may be allowed. A special recreation permit issued through existing regulatory processes would be required for such activities on BLM-managed lands, except when exemptions apply.
<u>Competitive Recreation Events</u> Competitive recreation events may be permitted in essential bighorn sheep habitat where the voluntary trail avoidance program does not apply.	<u>Competitive Recreation Events</u> Competitive recreation events would be prohibited year-round in essential bighorn sheep habitat.	<u>Competitive Recreation Events</u> Same as Alternative B.	<u>Competitive Recreation Events</u> Competitive recreation events may be permitted, through existing regulatory processes, except when exemptions apply.
<u>Motorized-Vehicle Use of Trails</u> Motorized vehicles would be prohibited on all trails in essential bighorn sheep habitat except when specifically approved for trail construction and maintenance projects. Approval for use of motorized vehicles for such projects would be addressed on a case-by-case basis, and may be given only when and where the voluntary trail avoidance program is not in effect.	<u>Motorized-Vehicle Use of Trails</u> Same as Alternative A except that approval for use of motorized vehicles for trail construction and maintenance projects may be given only when and where Seasonal Trail Area closures and the voluntary trail avoidance program are not in effect.	<u>Motorized-Vehicle Use of Trails</u> Motorized vehicles would be prohibited on all trails in essential bighorn sheep habitat.	<u>Motorized-Vehicle Use of Trails</u> Motorized-vehicle use of trails for trail construction and maintenance projects would be addressed on a case-by-case basis.

Table ES-2: Summary of Trails Management Plan Alternatives

Alternative A	Alternative B	Alternative C	Alternative D: No Action
<p><u>Public Outreach</u> An information and education program addressing all management prescriptions described under this alternative would be implemented.</p>	<p><u>Public Outreach</u> An information and education program addressing all management prescriptions described under this alternative, would be implemented. Guided hikes would be provided during the fall season. Viewing areas would be established to afford the public opportunities to see bighorn sheep and other wildlife from a distance. Interpretation of some cultural artifacts would also be provided.</p>	<p><u>Public Outreach</u> Same as Alternative B.</p>	<p><u>Public Outreach</u> Existing information and education programs pertaining to the use of trails and areas would be continued.</p>

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives				
NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.				
Environmental Element	Alternative A	Alternative B	Alternative C	Alternative D
ACECs	No new ACECs would be designated.	7,292 acres would be designated as new ACECs	23,631 acres would be designated as new ACECs	No new ACECs would be designated.
Wilderness	Management of all activities in accordance with regional land health standards would help maintain wilderness character on 160,551 acres of BLM-managed wilderness, or possibly enhance such character where improvements to resource conditions occur.	Management of all activities in accordance with regional land health standards and habitat conservation objectives , would help maintain wilderness character on 160,551 acres of BLM-managed wilderness or possibly enhance such character where improvements to resource conditions occur.	Management of all activities in accordance with regional land health standards and habitat conservation objectives , would help maintain wilderness character on 160,551 acres of BLM-managed wilderness or possibly enhance such character where improvements to resource conditions occur.	Management of all activities in accordance with National Fallback Standards adopted as regional land health standards would help maintain wilderness character on 160,551 acres of BLM-managed wilderness where improvements to resource conditions are accrued.
Wild & Scenic Rivers	Management of all activities in accordance with regional land health standards and continued suspension of grazing within the Whitewater allotment would help maintain and could enhance the outstandingly remarkable values of BLM-managed river segments located within Whitewater Canyon and Mission Creek. These segments totaling 19.1 miles in length are eligible for wild and scenic river designation. Such management would also help maintain and could enhance outstandingly remarkable values of a BLM-managed river segment in Palm Canyon. This segment totaling 1.2 miles	Management of all activities in accordance with regional land health standards and habitat conservation objectives for riparian communities would allow for continued recovery of riparian areas, thereby maintaining and potentially enhancing the outstandingly remarkable values of BLM-managed river segments located within Whitewater Canyon and Mission Creek. These segments totaling 19.1 miles in length are eligible for wild and scenic river designation. Elimination of the Whitewater grazing allotment north of the county line, affecting 5.8 miles of BLM-managed river segments in Whitewater Canyon and Mission Creek, would	Management of all activities in accordance with regional land health standards and habitat conservation objectives for riparian communities, and elimination of the Whitewater grazing allotment in its entirety would allow for continued recovery of riparian areas, thereby maintaining and potentially enhancing the outstandingly remarkable values of BLM-managed river segments located within Whitewater Canyon and Mission Creek. These segments totaling 19.1 miles in length are eligible for designation as wild and scenic rivers. Such management would also help maintain and	Management of all activities in accordance with National Fallback Standards adopted as regional land health standards would help maintain and could enhance the resource conditions of BLM-managed river segments located in Whitewater Canyon, Mission Creek, and Palm Canyon, totaling 20.3 miles in length. Eligibility determinations regarding possible designation of these segments as wild and scenic rivers would not be made at this time.

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives				
NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.				
Environmental Element	Alternative A	Alternative B	Alternative C	Alternative D
Wild & Scenic Rivers (continued)	in length is eligible for wild and scenic river designation.	additionally promote continued recovery of riparian areas at this location, thereby maintaining and potentially enhancing the outstandingly remarkable values of the river segments. The Palm Canyon land exchange with the Agua Caliente Tribe would transfer responsibility for coordinating a wild and scenic river suitability study of Palm Canyon to the USFS, pursuant to its land use plan decisions.	could enhance outstandingly remarkable values of a BLM-managed river segment in Palm Canyon. This segment totaling 1.2 miles in length is also eligible for wild and scenic river designation.	
Livestock Grazing and Farmlands	38,936 acres of a federal grazing allotment (990 animal unit months per year) would continue to be unavailable for up to 10 years while suitability/compatibility assessments were conducted. If found not suitable / compatible, impacts would be the same as under Alternative C. If found to be suitable / compatible, impacts would be the same as Alternative D. No impact to farmlands as no BLM lands are under lease for agricultural production.	Approximately 9,700 acres of federal grazing allotment would be retired, thus eliminating 248 animal unit months per year. The grazing regime may be adjusted to meet regional land health standards and habitat conservation objectives . No impact to farmlands as no BLM lands are under lease for agricultural production.	38,936 acres of federal grazing allotment would be retired, thus eliminating 990 animal unit months (119 head of cattle) per year. No impact to farmlands as no BLM lands are under lease for agricultural production.	No impact to grazing nor farmlands. Grazing on 38,936 acres of BLM-managed lands would continue to be available for grazing, providing 990 animal unit months.
Transportation	No impact. BLM may grant rights-of-ways for needed road access across public lands.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.

Environmental Element	Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives			
	NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Soil, Geology, Mineral, Energy Resources	Valid existing rights would be unaffected. BLM-managed public lands outside existing ACECs, Monuments and wilderness would continue to be available for sand and gravel mining. New mining and wind energy facilities within CVMSHCP conservation areas would be subject to conformance with the habitat conservation objectives . An additional 200-300 acres of wind energy development would occur north of Highway 111, most likely in areas historically used for wind energy generation. Additional mitigation measures may be required to meet those objectives, resulting in potentially increased project costs.	Valid existing rights would be unaffected. Up to 3,783 acres of State designated sand and gravel resource areas would be available for mining which is anticipated to meet the needs of the developing community for at least the next 20 years, and probably longer. The best available mining sites are in production (556 acres) and are included in the resource areas. An additional 200-300 acres of wind energy development would occur north of Highway 111, most likely in areas historically used for wind energy generation. New mining areas, wind energy facilities, and utility lines within conservation areas (up to 2,232 acres affected) would be subject to conformance with the habitat conservation objectives . Additional mitigation measures may be required to meet those objectives, resulting in potentially increased costs. If the habitat conservation objectives in an area could not be met, mining would foregone.	Valid existing rights would be unaffected. 1,551 acres of State designated sand and gravel resource areas would be available for mining. 2,232 acres of State designated sand and gravel resource areas would be unavailable for mining. New and renewals of windparks would be restricted, and would not likely meet future demand for wind power generation. New utility lines would be subject to conformance with the habitat conservation objectives . Additional mitigation measures may be required to meet those objectives, resulting in potentially increased project costs.	Valid existing rights would be unaffected. New utility projects would be required to be in compliance with the standard suite of environmental laws, including the Endangered Species Act. Mining on currently permitted mining operations on 556 acres of BLM-lands would continue. .
Recreation	Designation of Indio Hills, Drop 31, Windy Point, and Iron Door as "open areas" for motorized-vehicle access would enhance opportunities for	Designation of Drop 31 as an "open area" for motorized-vehicle access would enhance opportunities for vehicular free-play activities on 1,440 acres of	Closure of Windy Point south of Highway 111, and limiting motorized-vehicle access to designated routes at Indio Hills, Iron Door, and Drop 31 would	Restricting motorized-vehicle access to designated routes of travel in the Windy Point area south of Highway 11, as

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives				
Environmental Element	NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Recreation (continued)	vehicular free-play activities on 3,800 acres of public land throughout the Coachella Valley. Designation of Windy Point south of Highway 111 as an open area, however, would be inconsistent with the Santa Rosa and San Jacinto Mountains National Monument Act of 2000. Restricting use of hiking, biking, and equestrian trails would diminish opportunities for non-motorized recreation activities to the degree that limitations are imposed through the activity level planning process.	public land in the eastern portion of the Coachella Valley. Closure of Windy Point south of Highway 111 would diminish opportunities for OHV activities in an area where OHV use has become informally established, thereby displacing 100-150 people on busy weekends. This closure would largely eliminate dune-based OHV opportunities on public lands in the Coachella Valley. Limiting vehicle use to designated routes at Indio Hills and Iron Door would displace up to about 150 OHV users where OHV free-play areas have been informally established. Closure of 26 miles of routes currently available for use to meet habitat conservation objectives and air quality standards would diminish opportunities for vehicle touring by about 19 percent. Restricting use of hiking, biking, and equestrian trails would diminish opportunities for non-motorized recreation activities to the degree that limitations are imposed through the activity level planning process.	diminish opportunities for OHV free-play activities that have historically been available and frequently enjoyed at these sites, thereby displacing up to 500 OHV users per week during the cooler months. Prohibiting vehicle camping on public lands within conservation areas would diminish opportunities in those areas, primarily on the developed valley floor. Closure of 46 miles of routes currently available for use to meet habitat conservation objectives and further improve air quality relative to Alternative B would diminish opportunities for vehicle touring by about 34%. Restricting use of hiking, biking, and equestrian trails would diminish opportunities for non-motorized recreation activities to the degree that limitations are imposed through the activity level planning process.	required by the Santa Rosa and San Jacinto Mountains National Monument Act of 2000, would eliminate vehicular free-play activities on the sand dunes and adjacent lands that have historically occurred.

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives				
Environmental Element	NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Motorized-Vehicle Access	<p>Motorized-vehicle access would not change since routes outside existing closed areas would be designated "open." Seventy-one miles of routes (52% of the total mileage on BLM lands) would remain available for use. Vehicle access to the Dunn Road area would continue to be controlled by locked gates. Permitted commercial jeep tours could occur during the fall months with access through Pinyon Flats, subject to private landowner permission where applicable, and terms and conditions of a biological opinion. At least 7,000 visitors annually would continue to be displaced by these limitations in conjunction with denial of permission to cross private lands on the lower portion of the road. Permitted use of Dunn Road would result in little impact for flood control, law enforcement, search and rescue, and research activities. Legal access to landowners and agencies provided through a right-of-way grant would likely continue at low use levels.</p>	<p>Motorized-vehicle access would be reduced by about 19% on public lands with the closure of 26 miles of routes currently available for use. Where use of a route closed to casual use is deemed necessary in conjunction with an authorized activity (e.g., activities approved through a right-of-way grant) or to gain access to private lands, motorized access may be allowed. Vehicle access to the Dunn Road area would continue to be controlled by locked gates. Permitted commercial jeep tours could occur during the fall months with access through Pinyon Flats, subject to private landowner permission where applicable, and terms and conditions of a biological opinion. At least 7,000 visitors annually would continue to be displaced by these limitations in conjunction with denial of permission to cross private lands on the lower portion of the road. Permitted use of Dunn Road would result in little impact for flood control, law enforcement, search and rescue, and fire control activities. Legal access to landowners and agencies provided through a right-of-way</p>	<p>Motorized-vehicle would be reduced by about 34% on public lands with the closure of 46 miles of routes currently available for use. Where use of a route closed to casual use is deemed necessary in conjunction with an authorized activity (e.g., activities approved through a right-of-way grant) or to gain access to private lands, motorized access may be allowed. Vehicle access to the Dunn Road area would continue to be controlled by locked gates. Permitted commercial jeep tours would not be permitted. At least 10,000 visitors annually would be displaced, though denial of permission to cross private lands on the lower portion of the road currently displaces most of this use. Over time, portions of Dunn Road would become impassible due to erosion. Continued access for flood control, law enforcement, and fire control would be limited by road condition, except in the case of an ongoing fire or emergency (in which case the road surface may be reestablished). Legal access to landowners and agencies</p>	<p>Motorized-vehicle access would not change since use of existing routes outside closed areas would be continued, except where routes are temporarily closed through supplemental rules. Where use of a route closed to casual use is deemed necessary in conjunction with an authorized activity (e.g., activities approved through a right-of-way grant) or to gain access to private lands, motorized access may be allowed. Uses of Dunn Road would be the same as under Alternative A, except that no limitations as to when commercial jeep tours may occur would be imposed. Instead, applications for permits would be addressed on a case-by-case basis, subject to permission of private landowners where applicable, and terms and conditions of a biological opinion.</p>

Environmental Element	Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives			
	NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Motorized-Vehicle Access (continued)		grant would likely continue at low use levels. Re-evaluation of route designation in the Dunn Road area upon bighorn sheep recovery may allow for increased public recreation by vehicle.	provided through a right-of-way grant would be continued, but a through road is unlikely to persist.	
Floodplains and Hydrology	No impacts. BLM must consult with the U.S. Army Corp of Engineers prior to authorizing on public lands any activities which may affect waters of the U.S. and related floodplains.	Same as Alternative A	Same as Alternative A	Same as Alternative A
Water Quality	No impact. The land health standards incorporate best management practices for protecting water quality which apply to activities on BLM land.	Same as Alternative A	Same as Alternative A	No impact. BLM activities which may affect water quality are subject to State Water Quality Control Board permitting procedures and/or pollution control measures.
Biological	Habitat Conservation Objectives, Land Health Standards, Fire Management Categories, Exchange, Sale and Acquisition Criteria, and Management of Acquired Lands: Management of biological resources would be consistent with Federal law and regulation, absent a landscape approach to multi-species habitat conservation.	Established Habitat Conservation Objectives benefit biological species by providing criteria upon which to base future actions on BLM land, thereby providing for landscape level conservation of sensitive biological species. Implementation of Land Health Standards, Fire Management Categories, Exchange, Sale and Acquisition Criteria and	Habitat Conservation Objectives, Land Health Standards, Fire Management Categories, Exchange, Sale and Acquisition Criteria, and Management of Acquired Lands: Impacts would be the same as Alternative B. Management of all activities in accordance with regional land health standards and habitat conservation objectives , and	Habitat Conservation Objectives, Land Health Standards, Fire Management Categories, Exchange, Sale and Acquisition Criteria, and Management of Acquired Lands: Impacts would be the same as Alternative A. Management of all activities in accordance with National Fallback Standards adopted

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives

NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.

Environmental Element	Alternative A	Alternative B	Alternative C	Alternative D
	<p>Suspension of grazing within the Whitewater allotment would improve biological resources where improvements to resource conditions are accrued.</p> <p>Motorized vehicles can negatively impact biological resources by increasing visitor traffic to sensitive biological areas. Motorized vehicles can increase erosion thereby impacting soil microorganisms.</p> <p>Motorized Vehicle Area Designations of "Open" negatively impact sensitive biological resources by not limiting vehicle access to managed routes, thereby increasing sand compaction and erosion and potentially decreasing plant populations.</p> <p>Bighorn Sheep Recovery Strategy benefits bighorn sheep and other species by controlling tamarisk, managing water sources, constructing fences, reviewing research, limiting helicopter overflights, thereby limiting disturbance to sheep, etc.</p>	<p>Management of Acquired Lands, would provide a landscape approach to multi-species habitat conservation.</p> <p>Management of all activities in accordance with regional land health standards and habitat conservation objectives, and elimination of the Whitewater grazing allotment north of the county line would improve biological resources where improvements to resource conditions are accrued.</p> <p>Motorized Vehicles: Same as Alternative A and C.</p> <p>Motorized Vehicle Area Designations: Same as Alternative A and C.</p> <p>Bighorn Sheep Recovery Strategy: Similar to Alternative A with additional measures to further reduce impacts.</p> <p>Use of Hiking, Biking, and Equestrian Trails may be limited, including area closures, providing a benefit to sensitive biological resources</p>	<p>elimination of the Whitewater grazing allotment in its entirety would improve biological resources where improvements to resource conditions are accrued.</p> <p>Motorized Vehicles: Closure of roads can decrease visitation and therefore decrease potential negative effects to biological resources.</p> <p>Motorized Vehicle Area Designations: Not designating areas as "Open" can decrease visitation and therefore decrease potential negative effects to biological resources.</p> <p>Bighorn Sheep Recovery Strategy: Similar to Alternative B with additional measures to further reduce impacts.</p> <p>Hiking, Biking, and Equestrian Trails: Same as Alternative B.</p>	<p>as regional land health standards would improve biological resources where improvements to resource conditions are accrued.</p> <p>Motorized Vehicles: Same as Alternative A.</p> <p>Motorized Vehicle Area Designations: Same as Alternative A.</p> <p>Bighorn Sheep Recovery Strategy benefits bighorn sheep by removing tamarisk and considering recovery strategies such as constructing fences reviewing research and monitoring proposals on a case-by-case basis.</p> <p>Hiking, Biking, and Equestrian Trails Negative impact to sensitive biological resources may result without ability to limit use.</p>

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives				
NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.				
Environmental Element	Alternative A	Alternative B	Alternative C	Alternative D
Cultural/Native	Motorized vehicles provide for public enjoyment and may generate appreciation for cultural resources. However access can also increase visitation and therefore risk of vandalism to cultural resources. Motorized vehicles can increase erosion where roads pass near or through archaeological sites. Roads also provide Native American access to ceremonial sites and traditional plant collecting areas.	Same as Alternative A and C.	Closure of roads would decrease visitation and therefore risk of vandalism to cultural resources. Closure of roads could also limit Native American access to ceremonial sites and traditional plant collecting areas. Closure of roads would limit public enjoyment of cultural sites.	Same as Alternative A.
Air Quality	The land health standards incorporate best management practices for protecting air quality which apply to activities on BLM land. The Windy Point, Indio Hills and Iron Door open areas would contribute to the non-attainment of PM-10 standards documented at the Indio air quality monitoring station. Open routes upwind of the Indio station would also contribute to the PM-10 non-attainment. To the extent public land activities contribute to PM-10 levels, other non-federal land uses may be constrained in order to meet air quality standards for the benefit of valley residents.	The land health standards incorporate best management practices for protecting air quality which apply to activities on BLM land. Establishing an OHV open area downwind of most Coachella Valley residents, and limiting motorized vehicle access to designated routes in other areas, would reduce PM-10 emissions originating from the public lands. To the extent management of public land activities contributes to reducing PM-10 levels, other non-federal land uses may be less constrained in order to meet air quality standards for the benefit of valley residents.	The land health standards incorporate best management practices for protecting air quality which apply to activities on BLM land. The motorized-vehicle area closures and limiting routes to paved and maintained dirt roads would minimize PM-10 emissions originating from the public lands.	Management of BLM activities which may exceed NAAQ standards would comply with the Clean Air Act and would be affected by consultation with the South Coast Air Quality Management District. However management of activities on BLM-managed public lands would not significantly contribute to resolving PM-10 non-attainment problems in the Coachella Valley.

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives				
Environmental Element	NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Noise	Motorized vehicles and wind turbines would generate the most noise from the public lands. Recent wind turbine technology has reduced noise generated and wind turbines must meet County standards for noise levels generated. Off highway vehicles would generate noise affecting nearby residential areas including Snow Creek, Sky Valley and North Shore. This impact is low to residents outside the immediate area due to the remoteness of public lands and relatively low traffic volume passing the areas.	Motorized vehicles and wind turbines would generate the most noise from the public lands. Recent wind turbine technology has reduced noise generated and wind turbines must meet County standards for noise levels generated. Off highway vehicles would generate noise affecting nearby residential areas in North Shore. This impact is low to residents outside the immediate area due to the remoteness of public lands and relatively low traffic volume passing the areas. With a single area of focus, noise impacts would be partly mitigated through law enforcement.	Motorized vehicles and wind turbines would generate the most noise from the public lands. Recent wind turbine technology has reduced noise generated and wind turbines must meet County standards for noise levels generated. Off highway vehicles would not generate noise affecting nearby residential areas at Snow Creek, Sky Valley and North Shore. This overall impact is low due to the remoteness of public lands and relatively low traffic volume passing the areas. Same as Alternative A.	Same as Alternative A.
Hazardous Materials and Waste	No impact. All activities on BLM lands must comply with Federal, State and local law related to the proper disposal of hazardous and solid wastes.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Visual Resource Management	Within the 91,327 acres of BLM-managed lands designated as VRM Class 1, very limited management activities would be allowed. Substantial protection of visual resources is also afforded to 94,637 acres of BLM-managed lands designated as VRM	Same as Alternative A.	Same as Alternative A.	Interim VRM objectives would be established for affected lands on a case-by-case basis when project proposals are submitted to the BLM. VRM objectives would not be known prior to the time actions are proposed. Contrast Ratings

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives

NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.

Environmental Element	Alternative A	Alternative B	Alternative C	Alternative D
	<p>Class 2—activities on these lands must remain subordinate to the existing landscape, thereby limiting the degree of landscape modification allowed. The greatest flexibility for landscape modifications would be found on the 13,727 acres of BLM-managed lands designated as VRM Class 4 where management activities may be a dominant element of the landscape. Within the 128,350-acre NECO overlap area, no VRM classes are assigned. Impacts in this area are the same as Alternative D.</p>			<p>that measure the degree of contrast between a proposed activity and the existing landscape would be prepared relative to the interim objectives. Decisions to redesign, abandon or reject, or proceed would be based on the Contrast Rating.</p>
Utilities	<p>Valid existing rights would be unaffected. New utilities within conservation areas would be subject to mitigation and alignment in conformance with the habitat conservation objectives. Additional mitigation measures may be required to meet those objectives, would result in potentially increased project costs.</p>	<p>Same as Alternative A. In addition, designated wind park areas, communication sites and utility corridors are anticipated to meet the needs of the developing community for at least the next 20 years. The best available wind park and communication sites are already in production and are included in the designations.</p>	<p>Valid existing rights would be unaffected. Restriction of new windparks & communication sites, as well as renewals, would constrain the public land contribution wind power generation and communication site needs which support communities locally and in Southern California. New utility lines would be subject to conformance with the habitat conservation objectives. Additional mitigation measures may be required to meet those objectives, resulting in potentially increased project costs.</p>	<p>Valid existing rights would be unaffected. Requiring new utility projects to be in compliance with the standard suite of environmental laws, including the Endangered Species Act would have no additional impact.</p>

Environmental Element	Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Socio-Economic	<p>Opportunities for future economic development on the public lands would remain substantially unchanged from those currently available.</p> <p>Support to community infrastructure from public lands would continue at current levels, with slight increases in wind power generation, communication site capacity and sand and gravel supplies over time in response to demand.</p> <p>With multiple designated open areas, public lands would absorb more of the off highway vehicle use, reducing vehicle use pressure on non-federal lands.</p> <p>Generation of noise and dust by off highway vehicles would affect nearby residential areas including Snow Creek, Sky Valley and North Shore. Dust generation may also contribute to declines in air quality, in turn affecting other land uses in the Coachella Valley.</p>	<p>This alternative provides for future economic development of the BLM-managed lands and makes available resources needed for development for at least the next 20 years.</p> <p>Support to community infrastructure from public lands would continue at current levels, with slight increases in wind power generation, communication site capacity and sand and gravel supplies, over time, in response to demand.</p> <p>With one designated open area, public lands would absorb a portion of the off highway vehicle use. Because most non-federal land OHV use is in the form of free play, an opportunity not readily available at Drop 31, little change in vehicle use pressure on non-federal lands would occur.</p> <p>Off highway vehicles would generate noise and dust affecting nearby residential areas in North Shore. The dust impact would be reduced relative to other areas, given the course soils in the traveled washes. The Impact is low to</p>	<p>This alternative would substantially restrict opportunities for future economic development of the BLM-managed lands</p> <p>Support to community infrastructure from public lands would continue at current levels, in the short term. However, long term supplies for sand and gravel from local public land sources would be constrained. Should adequate local supplies from non-federal lands become inadequate, construction and road maintenance cost would rise to pay the cost of importing material. Energy generation would also be constrained as local contributions to energy supply were reduced. However, changes in local supply are unlikely to significantly affect costs to consumers relative to other factors. Communications site availability would also diminish over time. This may create Problems in servicing growing demand if technology change does resolve the issues.</p> <p>With no designated open area, public lands would not absorb</p>	Same as Alternative A..

Table ES-3: Effects of Coachella Valley CDCA Plan Amendment Alternatives				
NOTE: Where specific plan element actions are not discussed, no beneficial or adverse impacts are anticipated.				
Environmental Element	Alternative A	Alternative B	Alternative C	Alternative D
		residents outside the immediate area due to the remoteness of the public lands and the relatively low traffic volume passing the area. With a single area of focus, noise and dust impacts would be partly mitigated through law enforcement.	any portion of the off highway vehicle use, other than that which occurred in trespass. With enforcement on the federal lands, OHV use pressure would be displaced to non-federal lands. Off highway vehicles would generate noise and dust affecting nearby residential areas in areas removed from public lands. It is difficult to determine which areas and residents in the Coachella Valley would be affected. Enforcement actions by various jurisdictions could move the impact around.	
Environmental Justice	The public lands are remote enough such that activities on the public lands result in few to no impacts to nearby residences. Any major construction project proposed on the public lands is subject to further review in order to minimize health risks to children and to promote environmental justice.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.

Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives				
Environmental Element	NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
ACECs	No impact as no ACECs have been designated within the area affected by the trails management plan.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Wilderness	<p>Voluntarily avoiding trail use of certain wilderness trails during specified periods, thereby promoting recovery of the endangered bighorn sheep population, would benefit wilderness resources through preservation of wildlife values. Requesting noncommercial, noncompetitive organized groups to break into groups of no more than 15 individuals each and maintain separation between groups would enhance opportunities for solitude. Requesting individuals to refrain from cross-country travel in essential bighorn sheep habitat during specified periods would channel all use in the wilderness to specified trails, thereby diminishing opportunities for solitude. Opportunities for primitive recreation would be reduced on Boo Hoff and Guadalupe</p>	<p>Prohibiting trail use of certain wilderness trails during specified periods, thereby promoting recovery of the endangered bighorn sheep population, would benefit wilderness resources through preservation of wildlife values. Requesting noncommercial, noncompetitive organized groups to break into groups of no more than 15 individuals each and maintain separation between groups would enhance opportunities for solitude. Prohibiting cross-country travel in essential bighorn sheep habitat year-round would channel all use in wilderness to certain trails, thereby diminishing opportunities for solitude. New trail development linking Lake Cahuilla to Martinez Canyon could increase use in the canyon,</p>	<p>Prohibiting trail use of certain wilderness trails during specified periods, thereby promoting recovery of the endangered bighorn sheep population, would benefit wilderness resources through preservation of wildlife values. Requesting noncommercial, noncompetitive organized groups to break into groups of no more than 15 individuals each and maintain separation between groups would enhance opportunities for solitude. Prohibiting cross-country travel in essential bighorn sheep habitat year-round would channel all use in wilderness to certain trails, thereby diminishing opportunities for solitude. New trail development linking Lake Cahuilla to Martinez Canyon could increase use in the canyon,</p>	<p>To the degree that recovery of the endangered bighorn sheep population is adversely affected by unrestricted trail use, wilderness resources would be compromised upon a decline in wildlife values. Allowing cross-country travel year-round would help disperse individuals, thereby enhancing opportunities for solitude.</p>

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives			
	NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
	trails during seasonal closures.	increase use in the canyon, thereby diminishing opportunities for solitude. Opportunities for primitive recreation would be reduced on Boo Hoff and Guadalupe trails during seasonal closures.	thereby diminishing opportunities for solitude. Opportunities for primitive recreation would be reduced on Boo Hoff and Guadalupe trails during seasonal closures.	
Wild & Scenic Rivers	No impact as outstandingly remarkable values of BLM-managed river segments determined eligible for possible designation as wild and scenic rivers would be maintained.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Livestock Grazing and Farmlands	No impact to livestock grazing or farmlands as actions proposed in this trails management plan would not affect activities on the grazing allotment under USFS jurisdiction or any lands under lease for agricultural production.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Transportation	No impact as actions proposed in this trails management plan would not affect issuance of rights-of-way for motorized-vehicle access where needed.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives			
	NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Soil, Geology, Mineral, Energy Resources	No impact to mineral and energy resources as actions proposed in this trails management plan would not affect valid existing rights or impose limitations on development of energy resources. Effects of trail use on soils would be minor given low rainfall in the region and water diversion facilities on existing trails (e.g., water bars).	No impact to mineral and energy resources as actions proposed in this trails management plan would not affect valid existing rights or impose limitations on development of energy resources. Effects of trail use, trail rerouting, trail removal, and new trail development on soils would be minor given low rainfall in the region, water diversion facilities on existing trails and installation of such facilities on new trails (e.g., water bars), and mitigation measures likely imposed upon approval to removal specific trails.	Same as Alternative B.	Same as Alternative A.
Recreation	Restricting trail use of certain trails in essential bighorn sheep habitat (chiefly in the Santa Rosa Mountains) on a voluntary basis during specified periods would diminish opportunities for certain non-motorized recreational activities (e.g., hiking, horseback riding, mountain biking) for individuals and	Prohibiting trail use in Seasonal Trail Areas during specified periods would diminish opportunities for certain non-motorized recreational activities (e.g., hiking, horseback riding, mountain biking) in the Santa Rosa and San Jacinto Mountains, though new trail development (perimeter trails and a trail	Prohibiting trail use of additional trails relative to Alternative B would diminish opportunities for certain non-motorized recreational activities (e.g., hiking, horseback riding, mountain biking) in the Santa Rosa and San Jacinto Mountains to a greater degree than other alternatives herein addressed, though new	Unrestricted trail use in the Santa Rosa and San Jacinto Mountains would maximize opportunities for certain non-motorized recreational activities. To the degree that recovery of the endangered bighorn sheep population would be adversely affected by unrestricted trail use, however, opportunities for

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Recreation (cont.)	<p>noncommercial, noncompetitive organized groups willing to comply with the trail avoidance program, especially those individuals and groups accustomed to accessing trails via trailheads located in the mid-Coachella Valley (Palm Desert and La Quinta in particular). Opportunities for such activities would be least affected in the Palm Springs area since many trails there would not be subject to the voluntary trail avoidance program. Individuals and noncommercial, noncompetitive organized groups not willing to comply with the trail avoidance program would not be affected.</p> <p>Restricting cross-country travel and camping in essential bighorn sheep habitat on a voluntary basis during specified periods would diminish opportunities for these activities for individuals willing to comply. Individuals not willing to comply would not be</p>	<p>connecting the cities of Palm Desert and La Quinta), as well as use of the Art Smith Trail two days per week until the Palm Desert to La Quinta trail is completed, would somewhat mitigate these impacts. This prohibition would affect both individuals and noncommercial, noncompetitive organized groups. Opportunities for non-motorized recreational activities would be least affected in the Palm Springs area since many trails there occur within a perimeter trails area that would not be subject to the Seasonal Trail Area closure. Phasing in of the Seasonal Trail Area closures coincident with completion of adjacent new trails preceded by an interim voluntary trail avoidance program would affect opportunities for recreation in a manner similar to that discussed under Alternative A where the trail use prohibition has not yet been implemented.</p>	<p>trail development (perimeter trails) would somewhat mitigate these impacts. This prohibition would affect both individuals and noncommercial, noncompetitive organized groups. Opportunities for non-motorized recreational activities in the Palm Springs area would also be diminished to a greater degree than under other alternatives since many trails in the perimeter trail areas described for Alternative B, where use would be allowed year-round, would be seasonally closed with no new trails being developed nearby. Immediate seasonal closure of trails upon plan approval with no phasing in of closures coincident with completion of new perimeter trails would further diminish opportunities for non-motorized recreational activities, especially in Palm Desert and La Quinta, though such impacts would be temporary until new trail development is completed.</p>	<p>wildlife viewing and photography would be diminished.</p> <p>Allowing cross-country travel and camping throughout the year would maximize opportunities for these activities. Allowing dogs in the Santa Rosa and San Jacinto Mountains, subject to existing regulations, would afford additional opportunities to exercise these pets in a natural mountainous setting and may provide for a heightened level of security desired by certain individuals traveling in the backcountry.</p> <p>Impacts to recreation from requiring that special recreation permits be obtained for use of BLM lands by motorized and non-motorized commercial recreation providers, and sponsors of competitive recreation events cannot be determined as the decision regarding issuance of such</p>

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
Recreation (cont.)	Alternative A	Alternative B	Alternative C	Alternative D
	<p>affected. Prohibiting dogs in essential bighorn sheep habitat, except in designated areas, would diminish opportunities for exercising these pets in a natural mountainous setting. For individuals who hike with dogs for personal protection, this prohibition could instill a sense of insecurity while using trails or force these individuals to hike elsewhere where dogs are permitted.</p> <p>Impacts to recreation from requiring that special recreation permits be obtained for use of BLM lands by noncommercial, noncompetitive organized groups of 25 or more individuals, motorized and non-motorized commercial recreation providers, and sponsors of competitive recreation events cannot be determined as the decision regarding issuance of such permits in accordance with existing regulatory processes is unknown.</p>	<p>Prohibiting cross-country travel and camping in essential bighorn sheep habitat during specified periods would diminish opportunities for these activities. Prohibiting dogs in essential bighorn sheep habitat, except in designated areas, would result in the same impacts as described under Alternative A. Trail decommission and removal of redundant trails in the Murray Hill complex, as well as removal of other trails in accordance with specified criteria, would concentrate use on fewer trails thereby increasing the potential for occurrences of trail use conflicts.</p> <p>Relocation of Murray Hill facilities would have a minor effect on the use and enjoyment of the Clara Burgess Trail since such facilities are not considered integral to the overall experience for most users. As the Clara Burgess Trail would be closed from January 15 to June 30,</p>	<p>Prohibiting cross-country travel and camping in essential bighorn sheep habitat throughout the year would diminish opportunities for these activities to a greater degree than under other alternatives herein addressed. Prohibiting dogs in essential bighorn sheep habitat, except in designated areas, would result in the same impacts as described under Alternative A. Trail decommission and removal in the Murray Hill complex, as well as removal of other trails in accordance with specified criteria, would result in the same impacts as described under Alternative B. Relocation of Murray Hill facilities would result in the same impacts to the use and enjoyment of the Clara Burgess Trail as described under Alternative B. Future use of these facilities if installed at a location outside essential bighorn sheep habitat cannot be predicted absent identification of a new site.</p>	<p>permits in accordance with existing regulatory processes is unknown. Determinations regarding the need for noncommercial, noncompetitive organized groups to obtain a special recreation permit for use of BLM lands would be made on a case-by-case basis, hence impacts to recreation cannot be determined.</p>

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Recreation (cont.)		<p>installation of these facilities at a new location (within essential bighorn sheep habitat) that could be accessed throughout the year would likely provide opportunities for greater utilization of them.</p> <p>Impacts to recreation from requiring that special recreation permits be obtained for use of BLM lands by noncommercial, noncompetitive organized groups of 25 or more individuals, and motorized and non-motorized commercial recreation providers cannot be determined as the decision regarding issuance of such permits in accordance with existing regulatory processes is unknown. Prohibiting recreation events in essential bighorn sheep habitat would chiefly diminish opportunities for orienteering meets.</p>	<p>Impacts to recreation from requiring that special recreation permits be obtained for use of BLM lands by noncommercial, noncompetitive organized groups of 25 or more individuals and non-motorized commercial recreation providers cannot be determined as the decision regarding issuance of such permits in accordance with existing regulatory processes is unknown. Prohibiting motorized commercial recreation activities and competitive recreation events in essential bighorn sheep habitat would eliminate opportunities for jeep touring on Dunn Road and such events as orienteering meets, respectively.</p>	

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Motorized-Vehicle Access	No impact as motorized-vehicle access is addressed by the Coachella Valley CDCA Plan Amendments. Motorized-vehicle use of trails as addressed by this plan pertains to trail maintenance only, not general access.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Floodplains and Hydrology	No impact as actions proposed in this trails management plan would not affect waters of the United States and related floodplains.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Water Quality	No impact as actions proposed in this trails management plan would not affect water quality.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Biological	Pertains to all Alternatives: Human disturbance can alter habitat use and activity patterns of bighorn sheep. Population declines, shifts in habitat use, and interruption of seasonal migration routes have been linked to human disturbance. Voluntarily avoiding trail use of certain trails during specified periods would benefit bighorn sheep by limiting human	Prohibiting trail use of certain trails during specified periods would benefit bighorn sheep by promoting recovery of the population resources through preservation of wildlife values. Human disturbance can alter habitat use and activity patterns of bighorn sheep. Population declines, shifts in habitat use, and	Prohibiting trail use of certain trails during specified periods would benefit bighorn sheep by promoting recovery of the population resources through preservation of wildlife values. Human disturbance can alter habitat use and activity patterns of bighorn sheep. Population declines, shifts in habitat use, and	To the degree that recovery of the endangered bighorn sheep population is adversely affected by unrestricted trail use , biological resources would be compromised upon a decline in wildlife values. Allowing cross-country travel year-round would increase the chance for human disturbance to bighorn sheep, potentially

Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.				
Environmental Element	Alternative A	Alternative B	Alternative C	Alternative D
Biological (cont.)	<p>disturbance. The degree to which voluntary avoidance is practiced would affect the degree to which bighorn sheep are disturbed. Voluntarily refraining from cross-country travel in bighorn habitat from February 15 - September 30 would benefit bighorn sheep by reducing the amount of human disturbance. The degree to which voluntary avoidance of cross country travel is practiced would affect the degree to which bighorn sheep are disturbed. Voluntarily refraining from camping in bighorn sheep habitat from February 15 - September 30 would decrease disturbance to sheep during lambing season and hot summer months. The degree to which voluntary avoidance is practiced would affect the degree to which bighorn sheep are disturbed by humans. Prohibiting camping within 1/4 mile of all water sources benefits water quality, bighorn sheep and other species. Requiring</p>	<p>interruption of seasonal migration routes have been linked to human disturbance. Self-issued free permits would benefit bighorn sheep and other species by providing a method to monitor use on trails. Seasonal trail area closures implemented in phases would benefit bighorn sheep by reducing potentially harmful human disturbance. Perimeter trails would benefit bighorn sheep by providing alternative recreation options outside and on the edge of bighorn critical habitat, thereby providing additional opportunities for recreation users. Prohibiting cross-country travel in bighorn habitat from January 15 - September 30 would benefit bighorn sheep by reducing the amount of human disturbance to the sheep during lambing season and throughout the rest of the year. Prohibiting camping year round would decrease the impact of human disturbance to sheep throughout the year.</p> <p>Dogs - Same as A. Perimeter trails-Same as B. Trail Construction - Same as B. Trail Rerouting - Same as B. Trail Decommissioning - Same as B. Noncommercial, Noncompetitive</p>	<p>interruption of seasonal migration routes have been linked to human disturbance. Trail area closures would benefit bighorn sheep by reducing potentially harmful human disturbance. Prohibiting cross-country travel in bighorn habitat throughout the year would benefit bighorn sheep by reducing the amount of human disturbance to the sheep during lambing season and throughout the rest of the year. Prohibiting camping year round would decrease the impact of human disturbance to sheep throughout the year.</p> <p>Dogs - Same as A. Perimeter trails-Same as B. Trail Construction - Same as B. Trail Rerouting - Same as B. Trail Decommissioning - Same as B. Noncommercial, Noncompetitive</p>	<p>limiting the recovery of the population. Continuing to allow camping year-round increases the chance of human disturbance to bighorn sheep during lambing season, hot summer months, and throughout the year. Allowing dogs within bighorn habitat increases harm to bighorn sheep by providing more opportunities for disturbance to the sheep. Trail rerouting would benefit sheep if trails are rerouted to outside bighorn sheep habitat. Trails reroutes would harm sheep if reroutes occur within bighorn sheep habitat and resource values are not protected. construction would harm bighorn sheep by providing increased disturbance. Disturbance due to construction would be minimized by prohibiting development during lambing season and during hot summer months. Trail reroute construction would harm bighorn sheep by</p>

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Biological (cont.)	<p>dogs to be restrained in bighorn sheep habitat would benefit bighorn sheep by reducing disturbance caused by dogs. Providing specified areas for dogs benefits bighorn sheep by providing alternate locations outside of bighorn sheep habitat for dogs to be taken. Trail rerouting would benefit bighorn sheep if trails within bighorn habitat were rerouted to outside of bighorn habitat. Applying criteria to protect resource values would benefit bighorn sheep and would benefit other impacted biological resources.</p> <p>Noncommercial, Noncompetitive Organized Group Activities would benefit sheep if these activities were voluntarily avoided during lambing season and during hot summer months. The benefit to bighorn sheep would increase with increased participation of voluntary program. Permits would benefit bighorn sheep by providing information about trail use. Breaking up large</p>	<p>sheep during those months. A free use permit system would benefit bighorn sheep by providing a method to track potential human disturbance to sheep. Prohibiting camping within 1/4 mile of all water sources benefits water quality, bighorn sheep and other species.</p> <p>Dogs - Same as A. Perimeter trails would benefit bighorn sheep by providing recreation opportunities on the edge of bighorn habitat, thus reducing human disturbance caused by recreation on existing trails that cross large areas of bighorn habitat. Trail construction would harm bighorn sheep by providing increased disturbance. Disturbance due to construction would be minimized by prohibiting development during lambing season and during hot summer months. Trail rerouting would benefit bighorn sheep if trails within bighorn habitat were</p>	<p>Organized Group Activities - Same as B. Non-motorized Commercial Recreation Activities - Same as A. Motorized Commercial Recreation Activities would not disturb bighorn sheep during the entire year. Motorized-Vehicle Use of Trails would not harm bighorn sheep. Motorized Vehicle Use may harm resources and habitat where vehicles approved for use.</p> <p>Public Outreach - Same as A.</p>	<p>providing increased disturbance. Disturbance due to construction would be minimized by prohibiting development during lambing season and during hot summer months.</p> <p>Trail Decommissioning-Same as A. Noncompetitive Organized Group Activities - Potential harm to bighorn sheep if group activities provide high levels of disturbance to bighorn sheep.</p> <p>Non-motorized Commercial Recreation Activities - Same as A. Motorized Commercial Recreation Activities allowed during lambing season and the hot summer months would disturb bighorn sheep during the most vulnerable times of the year. disturb bighorn sheep during the most vulnerable times of the year.</p> <p>Competitive recreation events allowed during lambing season and the hot summer months would disturb bighorn sheep</p>

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Biological (cont.)	<p>groups and separating them by specified distances would benefit the sheep by limiting disturbance intensity to sheep</p> <p>Non-motorized Commercial Recreation Activities impact to bighorn sheep need to be considered on a case by case basis.</p> <p>Motorized Commercial Recreation Activities would disturb bighorn sheep throughout the length of Dunn Road, but would not cause any disturbance during lambing season and hot summer months.</p> <p>Competitive recreation events would cause disturbance to bighorn sheep only during non-lambing and winter months. Motorized-Vehicle Use of Trails would disturb sheep and may disturb them during the vulnerable lambing season and hot summer months.</p> <p>Public Outreach - Increased public outreach would benefit bighorn sheep in providing more educated and respectful recreation users.</p>	<p>rerouted to outside of bighorn habitat. Applying criteria to protect resource values and wildlife water sources would benefit bighorn sheep. Trail rerouting of Guadalupe Trail would benefit desert slender salamander populations if disturbance by humans is currently occurring and were to be limited by a trail reroute. Trail Decommission and Removal would benefit bighorn sheep by reducing human disturbance from trail use. Decommissioning trails would cause a one-time harmful impact to sheep by increasing disturbance, but would provide a longer term benefit to bighorn by decreasing the amount of future human disturbance caused by additional trails. Prohibiting the decommissioning of trails during lambing season and hot summer months decreases the harm to bighorn sheep. Noncommercial,</p>		<p>during the most vulnerable times of the year: winter months.</p> <p>Motorized Vehicle Use may harm resources and habitat where vehicles approved for use - to be decided on a case by case basis.</p> <p>Public Outreach - Same as A.</p>

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Biological (cont.)		<p>Noncompetitive Organized Group Activities - Same as A, but benefit to bighorn sheep is not based on voluntarily refraining from using trails - the benefit is based on closure of seasonal trail areas to groups. This would benefit bighorn sheep by limiting human disturbance.</p> <p>Non-motorized Commercial Recreation Activities - Same as A.</p> <p>Motorized Commercial Recreation Activities would disturb bighorn sheep throughout the upper portion of Dunn Road, but would not cause any disturbance during lambing season and hot summer months.</p> <p>Motorized-Vehicle Use of Trails - Same as A.</p> <p>Public Outreach - Same as A.</p>		

Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives				
NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.				
Environmental Element	Alternative A	Alternative B	Alternative C	Alternative D
Cultural/Native	<p><u>Trail Use</u> Some trails within the planning area lead to or pass through archaeological sites. Use of trails may negatively impact cultural resources by increasing visitor traffic to sensitive cultural areas. In some locations, trail users have constructed cairns or used paint to guide others to cultural resources. Mountain bikes and horse traffic may increase erosion where trails pass through archaeological sites.</p> <p>Closure of trails for portions of the year would decrease visitation to those areas, decreasing both the potential for negative effects to cultural resources and the ability of the public to view and learn to appreciate the sites. However, use & impacts may increase on trails remaining open.</p> <p>Closures of trails could also limit Native American access to ceremonial sites or traditional plant collecting areas.</p>	<p><u>Trail Use</u> Same as Alternative A.</p>	<p><u>Trail Use</u> Same as alternative A.</p>	<p><u>Trail Use</u> Some trails within the planning area lead to or pass through archaeological sites. Use of trails may have a negative impact on cultural resources by increasing visitor traffic to sensitive cultural areas. In some locations current trail users have constructed cairns or used spray paint to guide others to cultural resources. Mountain bikes and horse traffic may increase erosion where trails pass through archaeological sites.</p>

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives			
	NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Air Quality	Trail use and other activities allowed under this alternative would not substantially contribute to the non-attainment of PM-10 standards documented at the Indio air quality monitoring station.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Noise	No impact as trail use and other activities allowed under this alternative would generate little noise in remote areas.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
Haz Mat/Waste	No impact as trail use and other activities allowed under this alternative would not likely generate hazardous waste or solid wastes in quantities subject to Federal, State and local laws.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives			
	NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Visual Resource Management	Conformance with Visual Resource Management class 2 objectives proposed through the Coachella Valley CDCA Plan Amendments is not determined until project proposals are submitted to the BLM and a Contrast Rating that measures the degree of contrast between a proposed activity and the existing landscape is prepared.	New trail development is anticipated to conform with Visual Resource Management class 2 objectives proposed through the Coachella Valley CDCA Plan Amendments.	Same as Alternative B.	Same as Alternative A.
Utilities	No impacts as actions proposed in this trails management plan would not affect existing or proposed utilities.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.

Environmental Element	Table ES-4: Effects of Multi-Jurisdictional Trails Management Plan Alternatives NOTE: Where specific plan element actions are not discussed, no beneficial nor adverse impacts are anticipated.			
	Alternative A	Alternative B	Alternative C	Alternative D
Socio-Economic	<p>Opportunities for non-motorized and motorized commercial recreation activities would be subject to existing regulatory permitting requirements. Such opportunities would be diminished under this alternative given imposed limitations (e.g., restrictions regarding when and where such activities may be allowed). However, the degree to which opportunities would be diminished is unknown as the decision regarding issuance of permits in accordance with existing regulatory processes is unknown.</p>	<p>Same as Alternative A except opportunities for non-motorized and motorized recreation activities would be fewer.</p>	<p>Same as Alternative B except that opportunities for non-motorized commercial recreation activities would be fewer and motorized commercial recreation activities would be prohibited in essential bighorn sheep habitat.</p>	<p>Opportunities for non-motorized and motorized commercial recreation activities would be subject to existing regulatory permitting requirements. The degree to which opportunities would be available is unknown as the decision regarding issuance of permits in accordance with existing regulatory processes is unknown.</p>
Environmental Justice	<p>The actions proposed under this alternative would result in few to no impacts to nearby residences. Any major construction project proposed on the public lands is subject to further review in order to minimize health risks to children and to promote environmental justice.</p>	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.

**California Desert Conservation Area Plan Amendment
Santa Rosa and San Jacinto Mountains Trails Management Plan
and Draft Environmental Impact Statement
for BLM-managed Public Lands in the Coachella Valley, California**

1.0 INTRODUCTION

The California Desert Conservation Area (CDCA) is a region encompassing over ten million acres of public land in four southern California counties: Imperial, Riverside, San Bernardino and Inyo Counties. These CDCA public lands are managed by the Department of the Interior, Bureau of Land Management (BLM). The BLM is a federal agency responsible for managing the public lands in accordance with federal law, regulation and policy in order to sustain the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations.

The Federal Land Policy and Management Act of 1976 (FLPMA), BLM's organic act, directs the BLM to prepare land use plans which provide guidance, with public input, on how the public lands are to be managed. All subsequent activities on the BLM-managed public lands must be in conformance with the approved land use plan. The *California Desert Conservation Area Plan* (CDCA Plan, 1980, as amended) provides land use plan guidance for the entire California Desert Conservation Area. The CDCA Plan has undergone numerous minor amendments over the past 20 years, and is currently undergoing major amendments, divided into five eco-regions/planning areas (Figure 1-1): 1) the Northern and Eastern Colorado Desert planning area, 2) the Northern and Eastern Mojave Desert planning area, 3) the West Mojave Desert planning area, 4) the Coachella Valley planning area and 5) the Imperial Sand Dunes planning area. Refer to BLM's web site at www.ca.blm.gov for more information about these other plans.

1.1 Description of the Coachella Valley Planning Area

The Bureau of Land Management (BLM) manages approximately 28 percent (330,516 acres) of the total federal and non-federal land base in the Coachella Valley planning area (1,195,057 acres). The Coachella Valley planning area (Figure 1-2) is located approximately 100 miles east of Los Angeles in central Riverside County, California, plus a small portion in San Bernardino County. The Coachella Valley planning area does not include public lands within BLM's South Coast planning area and excludes in its entirety the Chocolate Mountain Aerial Gunnery Range. Management of this military installation shall be addressed through BLM's Northern and Eastern Colorado Desert Plan in collaboration with the United States Marine Corps.

The Coachella Valley itself is a broad, low elevation valley which runs northwest to southeast along the westernmost limits of the Colorado Desert portion of the Sonoran Desert. It is bounded by the San Bernardino Mountains to the northwest, the Little San Bernardino Mountains to the northeast, the Salton Sea to the southeast, and the Santa Rosa and San Jacinto Mountains National Monument to the southwest. The Coachella Valley is within the jurisdiction of the BLM's Palm Springs-South Coast Field Office.

Once a vast blowsand ecosystem covering more than 100 square miles, the Coachella Valley today is home to series of fast growing communities stretching from Palm Springs at its western end to the city of Indio and outlying communities of Coachella, Thermal, Mecca and North Shore in the southeast. The Coachella Valley is an area of particular interest due to its rapid growth and urbanization and the impact of this growth on the surrounding landscape. Between 1990 and 2000, the Coachella Valley population grew by 38 percent. Over the next 20 years, the Valley's population is projected to grow from its current population of 318,000 residents to a total of nearly 600,000 residents.

The BLM managed public lands are becoming increasingly important to the public as a source of recreational opportunities, open space, community infrastructure support, and habitat for threatened and endangered species. Since 1980, when the CDCA Plan was initially completed, nine Coachella Valley species have been listed as endangered by the U.S. Fish and Wildlife Service. In addition, four species are proposed for listing and numerous others have been identified as candidate species.

Many of the BLM-managed public lands within the planning boundary have existing land use designations for the protection of natural and cultural values, including five Areas of Critical Environmental Concern, all or portions of four wilderness areas, and a congressionally-designated national monument. A description of these existing lands use designations is provided in Chapter III "Affected Environment."

1.2 Purpose and Need.

The BLM in the Coachella Valley planning area has a need:

- 1) to provide for multiple use and sustainable development of the public lands while making progress towards healthy, properly functioning ecosystems;
- 2) to provide for the recovery of federal and state listed species;
- 3) to avoid future listings of sensitive species;
- 4) to provide recreational opportunities on the public lands;
- 5) to make available mineral and energy resources on the public lands;
- 6) to work collaboratively with the local jurisdictions to facilitate land management consistency, management effectiveness and cost-efficiency across jurisdictional boundaries.

The purpose of this plan amendment is to develop a general plan of action (in accordance with Title 43 *Code of Federal Regulations* Part 1610) for the BLM-managed public lands that will meet the aforementioned needs while at the same time:

- 1) Shall minimize resource use conflicts;
- 2) Shall not unduly burden Bureau resources and funding capability, including maintenance activities;
- 3) Shall include actions which are manageable and implementable relative to the urban/wildland interface and the public/private interface;
- 4) Shall be conducted in coordination with the members of the public, local jurisdictions, State and other Federal agencies to garner the public support needed to effectively implement the plan.

The BLM has a need in the Santa Rosa and San Jacinto Mountains to 1) provide for the recovery of federal and state listed species, 2) to avoid future listings of sensitive species, 3) to provide recreational opportunities on the public lands, and 4) to work collaboratively with the local jurisdictions to facilitate land management consistency, management effectiveness and cost-efficiency across jurisdictional boundaries. The purpose of the Santa Rosa and San Jacinto Mountains trails management plan is to develop a management strategy which provides year-round hiking, biking and equestrian use opportunities on the public lands while promoting recovery of the Peninsular Ranges bighorn sheep; and not to consider the effects of other types of land uses that may include habitat conversion. This strategy must also meet the aforementioned purpose statements identified for the Coachella Valley California Desert Conservation Area Plan Amendment.

1.3 Issues Addressed

The following planning issues have been identified for examination in the Coachella Valley CDCA Plan Amendment and the Santa Rosa and San Jacinto Mountains Trails Management Plan. These issues were developed with input from BLM staff and management, members of the public through public scoping, and close coordination with the local jurisdictions, State and other Federal agencies.

1.3.1 Coachella Valley California Desert Conservation Area Plan Amendment

- ▶ What indicators may be used to measure and monitor progress towards healthy, properly functioning ecosystems on the BLM-managed public lands?
- ▶ Which rivers in the Coachella Valley are eligible and suitable to recommend for Wild and Scenic River designation?
- ▶ What land uses and recreational opportunities in Peninsular Ranges bighorn sheep habitat are compatible with promoting recovery of bighorn sheep?
- ▶ What opportunities for motorized-vehicle access, mineral extraction and energy projects are available while avoiding future listings of sensitive species, and minimizing impacts to cultural resources and Native American values?
- ▶ How should the branded horses in the Indian Canyons which cross both Tribal and Bureau jurisdictional boundaries be most effectively and efficiently managed?
- ▶ Are the Wild Horse and Burro Herd Management Area designations in the Coachella Valley appropriate in light of the current herd levels, potential habitat use conflicts with bighorn sheep, and the checkerboard public land ownership pattern?
- ▶ Is grazing in Whitewater Canyon an appropriate use in light of the checkerboard public land ownership pattern and available legal access across private land?
- ▶ How can the interface between the Mecca Hills and Orocopia Mountains Wilderness Areas and off-highway vehicle areas be managed to provide recreation opportunity and minimize intrusions into Wilderness?
- ▶ What BLM land use allocations/designations are needed to facilitate consistency with the Coachella Valley Multi-Species Habitat Conservation Plan and to identify compatible uses within the reserve system?

1.3.2 Santa Rosa and San Jacinto Mountains Trails Management Plan

- ▶ What opportunities exist or can be created to provide hiking, biking and equestrian use in the Santa Rosa and San Jacinto Mountains while promoting recovery of the Peninsular Ranges bighorn sheep?

1.4 Alternatives Considered and Not Analyzed in Detail

Implement the Center for Biological Diversity lawsuit settlement stipulations. Parts of the stipulations are similar to proposed actions already being considered through the various multi-jurisdictional planning efforts, including some incorporated into this CDCA Plan Amendment. On the whole, the lawsuit stipulations as an alternative would fail to meet the Bureau's purpose and need as described above. The stipulations are not comprehensive in the sense that they do not address all parts of the planning area nor all components of a land management program necessary to: 1) address the issues covered by the plan amendment and 2) resolve conflicts where possible. The ability to resolve conflicts is of particular concern as these stipulations require unilateral action by BLM setting aside collaborative management of the public lands in a planning area with complex ownerships and jurisdictions. Because the stipulations were developed as part of a lawsuit settlement, public participation was curtailed, resulting in limited public support for the stipulations and their implementation. In complying with these stipulations, the Bureau had very little flexibility to assign funds and resources efficiently, leading to situations where 1) the actions were unduly costly relative to their intended benefit and 2) resources and staff were diverted from more productive programs and projects. The stipulations also had unintended consequences such as diverting vehicle use into previously undisturbed areas or creating trespass on private lands.

Close all motorized vehicle routes/areas within the Coachella Valley. This proposal would fail to meet the purpose and need for this plan as it would severely restrict public access for the non-hiking public and would significantly reduce recreational opportunities on the public lands. The cost of hiring enough law enforcement rangers to effectively enforce these closures would be prohibitively expensive.

Close all hiking/biking/equestrian trails within bighorn sheep critical habitat from January 1st through September 30th of each year. This proposal would fail to meet the purpose and need of this plan by severely restricting recreational opportunities within the Santa Rosa and San Jacinto Mountains in order to avoid most potential human interactions with bighorn sheep. There are studies or articles that describe stress effects to sheep due to recreation or suggest the possibility of contribution to population level effects (MacArthur et al. (1979 and 1982, Miller and Smith 1985, Papouchis et al. 2000, King and Workman (1986), Hansen 1970, Geist 1971, Horesji 1976). Krausman et al. (2000). However, not all research supports the conclusion that recreation has a detrimental effect on bighorn sheep (Hamilton et al. 1982, Hicks and Elder 1979. Population level effects, remain largely uncertain and unknown. Given the local tendency for sheep to enter into urban interface areas, there is evidence that local sheep can and do habituate to human activity. There is also widespread community interest to utilize the trails in the Santa Rosa and San Jacinto Mountains, especially in the winter and spring months. Public support, particularly by trail users and local governments, for such a

broad scale closure was not in evidence in public scoping. Without the necessary public support, the cost of hiring enough law enforcement rangers to effectively enforce these closures would be prohibitively expensive.

Open year-round all trails within bighorn sheep critical habitat to hiking, biking, equestrian and dog use. This proposal would fail to meet the purpose and need of this plan by not promoting recovery of the federally-listed, endangered Peninsular Ranges bighorn sheep. While the population level effects of stress-inducing disturbance on sheep during the lambing season are unknown, there is evidence that human encounters can result in adverse effects to both ewes and lambs (Geist 1971, Light and Weaver 1973, King and Workman 1986, Wagner and Peek 1999, Wehausen 1980). Exactly how much and what kind of disturbance is not well-documented at this time. We do know that dogs can create severe and persistent stress to bighorn sheep, probably because they are seen as predators (Geist 1971, MacArthur et al. 1979, MacArthur et al. 1982, Purdy and Shaw 1981, Goodson et al. 1999). Some level of management is necessary to limit the potential for adverse impacts to bighorn sheep in the portion of the Peninsular Ranges within the planning area.

1.5 Relationship to Other Plans

BLM planning regulations at 43 CFR 1610.3-2 require BLM planning documents to be consistent with officially approved resource related plans, policies and programs of other Federal agencies, State and local governments, and Indian Tribes, so long as these plans are consistent with the purposes, policies and programs of Federal laws and regulations applicable to public lands. The Coachella Valley California Desert Conservation Area Plan Amendment is being developed in concert with several planning efforts of relevance to the Coachella Valley. These plans and their relationship to this plan amendment are described below.

The Coachella Valley Multi-Species Habitat Conservation Plan/ Natural Communities Conservation Plan (CVMSHCP). In 1996, the BLM signed a Memorandum of Understanding along with nine Coachella Valley cities, Riverside County, State and other Federal agencies, to initiate preparation of the CVMSHCP. The purpose of the CVMSHCP is to utilize a landscape-based approach to provide for the long-term conservation of multiple sensitive species and their habitats, while streamlining “take” permitting processes. While the CVMSHCP process is primarily geared towards resolving private and city-county planning issues, federal participation is often necessary to achieve landscape-level species protection for some of the planning area.

Through the Coachella Valley CDCA Plan Amendment process, the BLM would determine how best to participate with the CVMSHCP, in the context of BLM’s land management mission as a federal agency.

The CVMSHCP planning boundary encompasses 1,205,780 acres located in the central portion of Riverside County, California. The CVMSHCP planning boundary generally is defined by the ridgelines of the San Jacinto, Santa Rosa and Little San Bernardino Mountains. It extends from the Imperial and San Diego County lines on the south, including portions of the Salton Sea, and to the Cabazon/San Geronio Pass area in the northwest. On the east, it extends along

Interstate 10 to include the Orocopia Mountains and the Chiraco Summit area. Approximately 24 percent of the planning area consists of BLM-managed public lands, while private lands total about 43 percent. The remaining 33 percent includes Native American, State and other public and quasi-public lands. The CDCA Plan Amendment planning boundary extends beyond the CVMSHCP planning boundary, incorporating BLM-managed public lands within the Santa Rosa Wilderness, public lands surrounding Coyote Canyon in Riverside County, and those portions of the San Geronio Wilderness and Big Morongo Canyon Area of Critical Environmental Concern (ACEC) within San Bernardino County.

The CVMSHCP is based upon two processes designed to accommodate community growth and development without compromising species protection. In 1982, Congress amended the Endangered Species Act to allow for the creation of Habitat Conservation Plans (HCP). The intent of the HCP process is to provide a community-based method for reducing conflicts between threatened and endangered species and economic development. Seldom used in its first decade, the U.S. Fish and Wildlife Service and the National Marine Fisheries System took steps in the early 1990s to streamline and strengthen the HCP process. Since 1992, more than 241 HCPs have been developed, covering 6.2 million acres. The BLM was one of the first federal agencies to become involved in Habitat Conservation Planning. In 1985, the Bureau participated in the Coachella Valley Fringe-toed Lizard Habitat Conservation Plan, the second Habitat Conservation Plan ever prepared in the United States. This plan created three preserves to protect habitat for the endangered fringe-toed lizard. A 1994 study prepared for the Coachella Valley Association of Governments (CVAG) recommended that a Multiple Species Habitat Conservation Plan be prepared for the Coachella Valley in order to meet threatened and endangered species conservation needs while still allowing for continuing economic growth and community development.

In 1991, the State of California built upon the HCP framework through its adoption of the Natural Community Conservation Planning (NCCP) program. This program authorizes the creation of regional conservation and development plans meant to protect entire communities of native plants and animals while streamlining the process for compatible economic development in other areas. The CVMSHCP meets the criteria of both the federal Habitat Conservation Plan and the state Natural Communities Conservation Planning processes.

The CVMSHCP will include a combined Environmental Impact Review (EIR), as required by the California Environmental Quality Act, and Environmental Impact Statement (EIS), as required by the National Environmental Policy Act. Upon completion of the CVMSHCP, the BLM proposes to adopt management measures in support of this plan as an activity (implementation) level plan for public lands within the planning area. The activity plan would be tiered to BLM's California Desert Conservation Area Plan Amendment for the Coachella Valley. This plan amendment was developed in tandem with the Coachella Valley Multiple Species Habitat Conservation Plan in order to provide the framework for those implementation actions which will support the landscape-level approach to conservation and providing for community needs. The Santa Rosa and San Jacinto Mountains Trails Management Plan is an element of and would be incorporated into the CVMSHCP.

Santa Rosa and San Jacinto Mountains National Monument Management Plan. In October of 2000 Congress passed, and the President signed, the Santa Rosa and San Jacinto Mountains National Monument Act of 2000, creating a 272,000 acre national monument on BLM and Forest Service managed land. The Act requires that a National Monument Management Plan be cooperatively developed by BLM and USFS for the by the Fall of 2003.

This National Monument is entirely within the Coachella Valley planning boundary. The National Monument includes Forest Service land within the San Jacinto District of the San Bernardino National Forest and BLM land within the California Desert Conservation Area (CDCA). Both the San Bernardino National Forest and the CDCA are currently undergoing planning amendments/revisions. CDCA Plan Amendment decisions affecting the National Monument would be brought forward into the National Monument plan, as will US Forest Service plan revision decisions affecting the National Monument.

Multi-jurisdictional decisions resulting from the CVMSHCP would also be incorporated into the National Monument Plan. This includes the Santa Rosa and San Jacinto Mountains Trails Management Plan, which would propose trail management decisions applying to the many jurisdictions that trails cross.

The legislation establishing the National Monument also requires specific items to be a part of the National Monument Plan. The CDCA Plan Amendment would be consistent with the specific actions called out in the Monument Legislation, including:

- ▶ Provisions to continue to authorize the recreational use of the Monument.
- ▶ Except for administrative and emergency purposes, motorized vehicle use is permitted on designated routes only.
- ▶ Allowing for hunting, trapping and fishing within the Monument. In consultation with CDFG, identify zones and time periods where such uses may be disallowed to protect public safety, administration, public use and enjoyment.
- ▶ Plan shall provide adequate access to state and private lands.
- ▶ Plan shall address need for public utility rights-of-way.
- ▶ Plan shall address the maintenance of roadways, jeep trails, and paths.
- ▶ Administer grazing leases/permits in accordance with existing law and regulations. Shall not affect Wellman Family grazing permit.
- ▶ Shall not restrict military, commercial and general aviation overflights.
- ▶ Commercial air tours (sightseeing) over the Monument is prohibited, unless such operation was conducted prior to February 16, 2000.
- ▶ Federal lands withdrawn from land entry, mining entry, mineral/geothermal.
- ▶ Lands or easements may only be acquired by willing donor/seller.
- ▶ Without further authorization by law, BLM and Agua Caliente Band of Cahuilla Indians may exchange lands.
- ▶ Nothing in this Act alters management of designated Wilderness areas, which remain subject to the Wilderness Act (Clarifying Amendments, Public Law 106-434; Nov. 6, 2000).

The Recovery Plan for the Peninsular Ranges Bighorn Sheep. When Congress passed the Endangered Species Act [16 U.S.C. 1531 et. seq.] in 1973, it set public policy that the people of the United States were to act to prevent the destruction of nature's resource diversity. The Act further declared that the policy of Congress is for federal agencies to seek to conserve endangered and threatened species and that they shall use their own authorities in furtherance of the purposes of the Act.

The Endangered Species Act, as amended includes the requirement to develop and implement recovery plans (Section 4(f)). Recovery, or the arrest or reversal of the decline of an endangered or threatened species, is the cornerstone and ultimate purpose of the endangered species program. The Secretary of the Interior has delegated responsibility for endangered and threatened species recovery to the Fish and Wildlife Service (USFWS).

Recovery plans identify actions which frequently require coordination among Federal, State, and local agencies, academic researchers, conservation organizations, private individuals, and major land users in order to be successful. However, the development and approval phases of recovery plans are excluded from National Environmental Policy Act of 1969 (NEPA) requirements because they are advisory in nature.

The Peninsular Ranges population of bighorn sheep (PRBS; *Ovis canadensis nelsoni*) was listed as endangered in 1998. In October of 2000, the USFWS completed the *Peninsular Ranges Bighorn Sheep Recovery Plan* which recommends actions to recover and protect this listed species. In February 2001, the U. S. Fish and Wildlife Service (USFWS) designated critical habitat for the PRBS. Bureau of Land Management employees were consulted during preparation of the recovery plan. The recovery plan makes the following recommendations which are directly applicable to the plan amendment (page citations are from the Recovery Plan):

1. Protect essential habitat, consisting of physical and biological resources needed for (1) normal behavior and protection from disturbance, and (2) individual population growth and movement, including dispersal to support a future population (pp. 69-70).
2. Acquire, or exchange to acquire, bighorn sheep habitat from willing landowners (p.75).
3. Remove exotic vegetation and prevent further invasion by exotic plants, especially tamarisk (p.77).
4. Reduce or eliminate wild horse populations from bighorn sheep habitat.
5. Implement a fire management plan in fire adapted habitats to help maintain bighorn sheep habitat (p.78).
6. Maintain existing water sources and consider providing additional water sources on public lands (p. 79).
7. Maintain or re-establish connectivity through out all habitat (p.79).
8. Construct fences to exclude bighorn sheep from urban area where they have begun or may begin using urban sources of food and water (p.80).
9. Manage road use and aircraft activities to reduce or eliminate habitat fragmentation or interference with bighorn sheep resource use patterns (p. 89).

10. Conduct or approve monitoring and research activities on public land to support adaptive management, enhance understanding of human/sheep interactions, understand habitat relationships, understand predator relationships, and clarify factors affecting population trends. (pp.89, 96-101).
11. Consider approval of predator removal activities on public lands (p.93).
12. Consider approval of reintroduction and augmentation activities on public lands (p. 94).
13. Develop and implement education and public awareness programs (pp. 104-107).

Through the CVMSHCP, Trails Management Plan and CDCA Plan amendment, the BLM is considering a range of alternatives, each composed of a suite of actions and guided by the Recovery Plan recommendations listed above. The alternatives include habitat improvements (tamarisk control, water sources, etc.), land exchanges, land acquisitions, trails management, and limits to other activities. Altogether, the decisions regarding these actions will compose the strategy to be implemented on BLM-managed public lands in order to contribute to bighorn sheep population recovery. By means of these planning efforts, the alternative strategies for public lands are analyzed by an interdisciplinary team and with the benefit of public input and comment under NEPA, as well as plan-level consultation with the Fish and Wildlife Service.

On a more specific level, the recovery plan identified trails and areas with potential conflicts that should be addressed in an interagency trails management plan. The Recovery Plan also makes the following recommendations which are directly applicable to the Santa Rosa and San Jacinto Mountains Trails Management Plan (activity plan):

1. Develop and implement a trails management program with affected land management agencies, scientific organizations, and user groups (p. 86-89).
 - a) Prepare a public education and outreach program for trail users.
 - b) Confine dogs to designated areas and prohibit dogs in bighorn sheep habitat
 - c) Apply seasonal restrictions on selected trails in lambing habitat between January 1 and June 30.
 - d) Seasonal restrictions may be appropriate for selected trails that lead to water sources.
 - e) Address possible seasonal restrictions, trail re-locations or permanent trail closures where restrictions cannot be enforced and relocations are not possible
 - f) Use trails as a tool to focus use away from more sensitive areas.
 - g) Avoid constructing new trails, except on the edge of urban areas to relieve pressure on other sensitive trails and to discourage sheep use of urban areas. Where new trails are used impacts should be minimized.
 - h) Maintain a uniformed agency presence during peak use period to educate the public, monitor compliance with trails rules, and enforce rules against violations.
2. Manage trail use to reduce or eliminate habitat fragmentation or interference with bighorn sheep resource use patterns (p. 89)

Through the Santa Rosa and San Jacinto Mountains Trails Management Plan (an activity plan), the BLM is considering a range of alternatives which represent different approaches to provide the trails management component recommended in the Recovery Plan. Similar to the broader Resource Management Plan decisions discussed above, an environmental impact analysis of the various approaches is provided. Trails management decisions, however, are more easily adapted over time because they do not require a plan amendment to modify.

The recovery plan also makes recommendations which may be the subject of future activity planning, project planning, or environmental analysis prior to implementation. This is generally because the specific projects are not known, or additional more detailed planning is necessary to develop and analyze specific proposals or alternatives. New actions outside the scope of the analysis completed for this plan would be subject to additional project-level consultation with U.S. Fish and Wildlife Service.

1. Prohibit use of goats as a pack animal on trails (p.91).
2. Prohibit fences in which sheep may become entangled or strangled, or that block sheep movement in bighorn sheep habitat (p. 91).
3. Acquire, or exchange to acquire, bighorn sheep habitat from willing landowners (p.75).
4. Remove exotic vegetation and prevent further invasion by exotic plants, especially tamarisk (p.77).
5. Implement a fire management plan in fire adapted habitats to help maintain bighorn sheep habitat (p.78).
6. Maintain existing water sources and consider providing additional water sources on public lands (p. 79).
7. Construct fences to exclude bighorn sheep from urban area where they have begun or may begin using urban sources of food and water (p.80).
8. Manage road use and aircraft activities to reduce or eliminate habitat fragmentation or interference with bighorn sheep resource use patterns (p. 89).
9. Conduct monitoring and research to support adaptive management and to enhance understanding of human/sheep interactions (p.89).
10. Consider approval of predator removal activities on public lands (p. 93).
11. Consider approval of reintroduction and augmentation activities on public lands (p. 94).

Agua Caliente Band of Cahuilla Indians Land Management Plan. The Agua Caliente Band of Cahuilla Indians is developing a Tribal Habitat Conservation Plan for the Agua Caliente Indian Reservation. The purposes of this plan are to balance environmental protection and economic development objectives for the Reservation and to simplify compliance with the Endangered Species Act. The Agua Caliente Indian Reservation encompasses over 31,400 acres of land in the Coachella Valley. The reservation includes Tribal trust land, allotted trust land, and both Tribal and non-Indian fee land, which is interspersed in a checkerboard pattern among public and private lands. The Tribal Habitat Conservation Plan and the Reservation have the same boundary, and the plan is intended to govern all development activities taking place within the Reservation. BLM-managed public lands adjoin Tribal lands in a number of locations throughout the Valley. BLM's CDCA plan amendment was developed in coordination with the Tribal Habitat Conservation Plan in order to facilitate consistency in land uses and habitat protection across the Coachella Valley. Furthermore, the Tribe and the BLM operate under a

Cooperative Management Agreement and actively seek to find ways to engage in activities that improve land management compatibility, effectiveness and efficiency.

Santa Rosa Mountains Wildlife Habitat Management Plan: A Sikes Act Project (Sikes Act Plan): This plan was jointly prepared and approved by BLM and the State of California Resources Agency, Department of Fish and Game in 1980. It described shared wildlife and habitat management objectives, as well as actions to implement those objectives. The plan includes information that is no longer current, decisions that have already been implemented, decisions which no longer fit current conditions, and decisions which are still relevant. The CVMSHCP and the Santa Rosa and San Jacinto Mountains Trails Management Plan (an activity plan) would update and amend the Sikes Act Plan. The following is a summary of how decisions in the Sikes Act Plan relate to the current planning efforts. All of the Sikes Plan objectives and the following decisions in the plan would be carried forward without modification:

1. Coordination of public access with California Department of Fish and Game lands and Anza Borrego State Park lands will continue.
2. Coordination of public education with California Department of Fish and Game, local government agencies, University of California and others will continue.
3. Where appropriate, the BLM will secure reciprocal rights of way for public access when granting rights of way across BLM land.
4. Inventory and maintenance of water sources for bighorn sheep will continue.
5. An interpretive sign will be designed for placement at Vista Point on Highway 74.
6. Trespasses will continue to be addressed under existing regulations.
7. Survey and monitoring for Desert Slender Salamander, Magic Gecko and raptors will continue.

The following items in the Sikes Act Plan are updated:

1. Establishment of the Dead Indian Creek Natural Area withdrawal from mineral entry, agricultural entry and public sale would be modified consistent with the Santa Rosa and San Jacinto Mountains National Monument Act of 2000.
2. Wilderness Study Area language has been modified by the California Desert Protection Act of 1994 which established the Santa Rosa Wilderness.
3. There no longer is a Sheffer Grazing Allotment on public lands in the Santa Rosa Mountains.
4. The Santa Rosa and San Jacinto Mountains National Monument is closed to location of mining claims.
5. Flood control projects at Magnesia, Carrizo, Dead Indian and Bear Creek drainages are completed.
6. Off road vehicle controls are in place for Dead Indian Canyon, Carrizo Canyon, and Martinez Canyon. The Martinez Canyon proposal has been modified by the cherrystem designation for Santa Rosa Mountains Wilderness in the California Desert Protection Act of 1994. The project design for Guadalupe Canyon is completed and scheduled for implementation in 2002.

The following items would be modified by the current planning efforts:

1. Vehicle use designations referenced in the Sikes Act Plan for BLM-managed public lands will be superseded by plan amendment decisions.
2. The land exchange and acquisition program has been modified by the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 and may be affected by decisions in this plan amendment.
3. Research and monitoring protocols are being redesigned based on Endangered Species Act listing of the bighorn sheep of the Peninsular Ranges and the subsequent Recovery Plan. They will also be affected by decisions in this plan amendment relative to research uses on BLM-managed public lands.
4. The location and design for water development proposals for sheep will be re-evaluated at the project level (case-by-case) based on management direction set in the CDCA plan amendment.
5. The conclusion that no protective measures for water sources are necessary beyond the seasonal restrictions in place at Carrizo Canyon and Magnesia Springs Ecological Reserves (State lands) may be modified by decisions in the Santa Rosa and San Jacinto Mountains Trails Management Plan
6. Bighorn sheep transplant decisions require updating based on the ESA listing and the subsequent Recovery Plan. Decisions in this plan amendment may also affect transplants onto BLM-managed public lands.
7. Management guidelines set by the Sikes Act Plan regarding recreation, public access, trails, roads, fences, grazing, exotic plants and animals, science, education, and mining will be updated and modified by decisions in this plan amendment and the Santa Rosa and San Jacinto Mountains Trails Management Plan.

Draft 2002 Coachella Valley PM10 State Implementation Plan The South Coast Air Quality Management District (AQMD), pursuant to the California Environmental Quality Act (CEQA), has reviewed the draft 2002 Coachella Valley PM10 State Implementation Plan (2002 CVSIP) and prepared a draft Negative Declaration for 30 days public review and comment period ending May 29, 2002.

In the Coachella Valley, PM10 sources include construction activities, vehicular activity on paved and unpaved roads, and windblown emissions from disturbed surfaces. AQMD staff will also provide a review of high-wind natural events that will be excluded from the PM10 attainment determination, per the U.S. Environmental Protection Agency (U.S. EPA) Natural Events Policy.

Due to exceedance of the 24-hour and annual average PM10 standards, U.S. EPA classified Coachella Valley as a serious PM10 non-attainment area on February 8, 1993. Under the federal Clean Air Act (CAA), areas that are classified as serious PM10 non-attainment are required to attain the PM10 standards by December 31, 2001. CAA Section 188(e) further states that the U.S. Environmental Protection Agency is allowed to extend the attainment date for up to five years if attainment by 2001 is not practicable. After several years of demonstrating attainment of the PM10 standards, the Coachella Valley was not in attainment by December 31, 2001, based on PM10 air quality data from 1999-2001.

The purpose of the 2002 CVSIP is to develop an enhanced PM₁₀ reduction program that demonstrates attainment with the PM₁₀ standards by the earliest practicable date and to provide the necessary supporting documentation to formally request an extension of the PM₁₀ attainment date.

Coachella Valley PM₁₀ reduction efforts began in the early 1990s with adoption of dust control ordinances by local jurisdictions, development of a clean streets management program, and AQMD rules to reduce emissions from man-made PM₁₀ sources. As a result, the Coachella Valley experienced three years (1993 - 1995) without a PM₁₀ exceedance and the AQMD prepared and adopted the 1996 Coachella Valley PM₁₀ Attainment Redesignation Request and Maintenance Plan.

Despite previous efforts, the Coachella Valley exceeded the annual average PM₁₀ standard of 50 mg/m³ during the years 1999 - 2001. As mentioned, the CAA allows an extension of the attainment date for up to five years provided that: 1) all previous SIP commitments have been implemented, 2) a demonstration that attainment by 2001 is not practicable, 3) documentation that all feasible Most Stringent Measures (MSM) are being implemented, and 4) a demonstration that the expected attainment date is the most expeditious date practicable.

In conjunction with the Coachella Valley Association of Governments, local jurisdictions, government agencies (including BLM), developers/builders, farmers, other stakeholders and the public, AQMD staff prepared the 2002 CVSIP that includes:

- A summary of previous dust control plans and regulations
- Latest PM₁₀ air quality
- Revised emissions inventory and emissions budget for transportation conformity
- The required most stringent measures (MSM) analysis
- Control strategy and attainment demonstration
- Natural Events Action Plan update
- Official request for extension of the PM₁₀ attainment deadline

The control strategy is based on enhancements to the current federally-approved dust control ordinances and AQMD rules. Control measures will incrementally improve dust control and compliance for construction and other earth moving projects, farming operations, paved and unpaved roadways, open vacant lands, and unpaved parking lots. New measures include increased construction signage, construction dust monitors, stricter track-out control measures, agricultural best management practices, ensuring limited access or control of vacant lands, stabilizing or paving of unpaved shoulders, medians, and unpaved roads, and additional control of unpaved parking lots. New test methods and requirements for notification and record keeping are also proposed.

The 2002 CVSIP relates plan amendment decisions regarding designation of the vehicle route network on public lands, designation of off-highway vehicle use areas, closure of areas to vehicle use to reduce dust emissions, and mitigation requirements for authorized activities on public lands within the planning area.

For more information on the draft 2002 Coachella Valley PM10 State Implementation Plan, contact Ms. Martha Lucero, Public Advisor's Office, 21865 East Copley Drive Diamond Bar, CA 91765, (909) 396-2039, or Michael Laybourn, South Coast AQMD, Planning and Rules, 21865 East Copley Drive, Diamond Bar, CA 91765, 909-396-3066 or by E-mail at mlaybourn@aqmd.gov.

General Plans and Management Plans prepared by Local Jurisdictions, Native American Tribes, and State Agencies. The BLM shall coordinate with the local jurisdictions, Native American Tribes and State Agencies to facilitate consistency with plans prepared by these entities, to the legal extent feasible under Federal law, regulation and policy.

The Northern and Eastern Colorado Desert (NECO) Plan. BLM's Draft NECO Plan provides alternative scenarios for a comprehensive framework for managing species and habitats, including recovery of the desert tortoise, on Federal lands managed by the BLM, National Park Service (Joshua Tree National Park), and the U.S. Marine Corps (Chocolate Mountains Aerial Gunnery Range) in eastern San Bernardino, Riverside, and Imperial Counties. The draft plan and Environmental Impact Statement was released for public review on February 26, 2001. The public comment period ended June 25, 2001. It is anticipated that the final plan will be released the summer of 2002.

The western edge of the NECO plan overlaps the CVMSHCP planning area by about 55,000 acres, all in Riverside County. It is anticipated that the NECO Plan will be completed first. The CVMSHCP will serve as a habitat conservation plan, so decisions will apply to Federal, State and private lands. Even though the respective planning leads have been coordinating to facilitate consistency in the overlap area, some NECO Plan decisions may require amending in order to complete the CVMSHCP.

The West Mojave Desert Plan. The West Mojave Desert Plan encompasses 9.4 million-acres throughout most of California's western Mojave Desert. It extends from Olancho in Inyo County on the north, to the San Gabriel and San Bernardino Mountains on the south, and from the Antelope Valley on the west, to the Mojave National Preserve on the east. About one third of the planning area is private land, another third is within military bases, and the final third consists of public lands managed by BLM. Approximately two square miles of the West Mojave planning boundary overlaps with the Coachella Valley planning boundary, all within San Bernardino County.

The West Mojave Plan is being jointly prepared by local jurisdictions, the Department of Defense and BLM. The completed plan would serve as a habitat conservation plan and would enable the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) to issue programmatic biological opinions, incidental take permits and "no surprises" assurances to each of the participating agencies, thereby streamlining issuance of "take" permits for private development interests and military operations. The draft plan is currently under preparation and scheduled for public release late in 2002. The BLM planning team leads for the West Mojave and Coachella Valley plan are working together to ensure consistency between the two plans in the overlap area.

1.6 Planning Criteria

Planning criteria are parameters (or “sideboards”) which guide development of the plan amendment, to ensure the planning process is tailored to the issues and to avoid unnecessary data collection and analyses. Planning criteria are generally based on standards prescribed by applicable Federal laws, regulations, Executive Orders, BLM Manual and policy, and the result of coordination with the public, Tribes, and other Federal, state and local government agencies.

1.6.1 Criteria Specific to the CDCA Plan Amendment

In addition to the standard suite of laws, regulations, Executive Orders, BLM Manual and policy criteria which guide all BLM planning and environmental review documents, the following criteria were specifically established to guide development of the California Desert Conservation Area (CDCA) Plan Amendment for the Coachella Valley:

- ▶ This CDCA Plan Amendment for the Coachella Valley shall be completed by December 31, 2002.
- ▶ As this Coachella Valley planning effort is an amendment to and not a revision of the CDCA Plan (1980, as amended), any CDCA plan elements not addressed nor specifically changed in this plan amendment shall remain extant and in effect.
- ▶ The planning boundary for the Northern and Eastern Colorado Desert (NECO) Plan overlaps the eastern portion of the Coachella Valley planning boundary. BLM staff working on the Coachella Valley plan amendment have coordinated with staff working on the NECO Plan to ensure consistency between the two plans.
- ▶ The planning boundary for the West Mojave Plan overlaps the northwest portion of the Coachella Valley planning boundary. BLM staff working on the Coachella Valley plan amendment are coordinating with staff working on the West Mojave Plan to ensure consistency between the two plans.
- ▶ Any proposals promulgated through this Coachella Valley planning effort shall be in compliance with the California Desert Protection Act of 1994 and the Santa Rosa and San Jacinto Mountains National Monument Act of 2000.

1.6.2 Laws, Regulations and Policies

There are a broad range of federal laws, regulations and policies guiding development of this Coachella Valley CDCA plan amendment, including but not limited to:

- ▶ Federal Land Policy and Management Act of 1976
- ▶ Title 43 Code of Federal Regulations (CFR) (Regulations related to public lands)
- ▶ BLM Manual 1601 and 43 CFR 1610 (BLM's planning guidance and regulations)
- ▶ National Environmental Policy Act of 1969 and the Title 40 CFR Part 1500.
- ▶ Endangered Species Act of 1973, as amended
- ▶ California Desert Protection Act of 1994 and the Wilderness Act of 1964
- ▶ Wild and Scenic Rivers Act
- ▶ Wild Horse and Burro Act

- ▶ Taylor Grazing Act of 1929 and the Rangeland Improvement Act
- ▶ Clean Water and Clean Air Acts
- ▶ Santa Rosa and San Jacinto Mountains National Monument Act of 2000
- ▶ The President's National Energy Policy (Executive Order 13212)
- ▶ Native American Consultation per Executive Orders 12866, 13084, et al
- ▶ Protocol Agreement (1998) with the State Historic Preservation Office

Federal Land Policy and Management Act of 1976 (FLPMA). FLPMA establishes the authority and provides guidance for how the public lands are to be managed by the Bureau. The following is a highlight of FLPMA sections that are especially pertinent to this planning process.

Multiple Use. In accordance with FLPMA, BLM is directed to manage the public lands on the basis of multiple use and sustained yield unless otherwise specified by law. FLPMA also requires that the public lands are to be managed in a manner which will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource and archeological values. Multiple use does not imply that all uses are available on all parcels of public land. In order to minimize land use conflicts, public lands containing sensitive values and dedicated for conservation may have additional restrictions. Some lands outside more sensitive areas may be used more intensively for a variety of social or economic purposes.

In the CDCA plan, public lands are assigned a multiple use classification (MUC) according to the allowable level of multiple use. Class C (Controlled Use) designation is the most restrictive, and is assigned to wilderness and wilderness study areas with minimal levels of multiple use. Class L (Limited Use) lands are managed to provide lower-intensity, carefully controlled multiple use of resources while ensuring that sensitive values are not significantly diminished. Class M (Moderate Use) lands are managed to provide for a wider variety of uses such as mining, livestock grazing, recreation, utilities and energy development, while conserving desert resources and mitigating damages permitted uses may cause. Class I (Intensive Use) provides for concentrated uses of lands and resources to meet human needs. Mitigation of impacts and rehabilitation of impacted areas would be implemented to the reasonable extent possible. Scattered and isolated parcels of public land in the CDCA that have not been assigned an MUC are unclassified. Through the CDCA plan amendment process, BLM may consider whether any lands should receive a different MUC in order to better meet BLM's goals and objectives.

Valid Existing Rights. This proposed plan amendment applies only to BLM-managed Federal lands, and does not apply to private nor other government agency lands except to the extent a management agreement exists between BLM and the landowner. Nothing in this proposed plan amendment shall have the effect of terminating any validly issued right-of-way, or customary operation, maintenance, repair and replacement activities in such right-of-ways issued in accordance with Section 509(a) and 701(a) of FLPMA.

Areas of Critical Environmental Concern. FLPMA [202(c)(3)] also authorizes BLM to designate Areas of Critical Environmental Concern that are areas requiring special management attention to protect important historic, cultural or scenic values, fish and wildlife resources, natural systems and processes, or to protect life and safety from natural hazards. ACECs are designated through the BLM planning process in accordance with 43 CFR 1610.7-2. Unlike Congressionally designated wilderness, ACEC designation does not automatically define a specific set of management actions, such as closing an area to motorized vehicles.

Proposed ACECs and expansions must meet the criteria for relevance and importance established in 43 CFR 1610.7-2(a) prior to designation. Relevance means that "there shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard. Importance means that "the above described value, resource system, process or hazard shall have substantial significance and values. This generally requires qualities of more than local significance..." In addition, the BLM must determine whether the resources or values that meet the criteria require special attention and therefore, warrant designation as an ACEC. A discussion of the relevance and importance of the resources contained within the proposed ACECs and proposed ACEC expansion areas are included in the "Affected Environment" section of this document. Decisions and actions are then designed to manage an ACEC in a manner consistent with the relevant and important values for which it was designated.

Endangered Species Act. Development projects on private and public lands are subject to the Federal Endangered Species Act of 1973 as amended (ESA). The ESA directs proponents to consult with the USFWS in order to ensure the continued existence of threatened and endangered species and avoid adverse modification of designated critical habitat. Consultation results in the issuance of a Biological Opinion and a Section 10(a) (for non-federal actions) or a Section 7 (for Federal actions) permit by the USFWS.

Area and Route Designation Criteria. As required by 43 CFR §8342.1, the designation of public lands as either open, limited or closed to off-road vehicles, and the designation of routes, shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:

- ▶ Areas and routes shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
- ▶ Areas and routes shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- ▶ Areas and routes shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

- ▶ Areas and routes shall not be located in officially designated wilderness areas or primitive areas. Areas shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

President's National Energy Policy. As outlined in Executive Order 13212 of May 18, 2001, agencies shall take appropriate actions, to the extent consistent with applicable law, to expedite projects that will increase the production, transmission, or conservation of energy. Agencies are required to identify in their land use plans areas with high potential for energy development, high mineral value, and areas necessary for energy-related infrastructure. In accordance with Washington D.C. Office Instruction Memorandum No. 2002-053, agencies must take into consideration the impacts of proposed actions on energy development, production, supply and/or distribution.

Guidance on general habitat management. In addition to the nine formally listed endangered species in the Coachella Valley, there are an additional 20 species that have special status under State and Federal regulation. BLM proposes to address habitat conservation at the landscape level in cooperation with other jurisdictions in the Coachella Valley. This multiple jurisdiction approach focuses on establishing core reserves, providing corridors linking reserves, and maintaining ecological processes important to endemic species in the Coachella Valley in accordance with the following general principles of conservation biology:

- ▶ Conservation areas that encompass a species' native range will be more successful in preventing extinction than areas confined to small portions of a species' range.
- ▶ Large blocks of habitat containing large populations of the species are superior to small blocks of habitat containing small populations.
- ▶ Blocks of habitat that are close together are better than blocks far apart.
- ▶ Habitat that occurs in less fragmented, contiguous blocks is preferable to habitat that is fragmented.
- ▶ Habitat patches that minimize edge-to-area ratios are superior to those that do not.
- ▶ Interconnected blocks of habitat are more effective than isolated blocks, and corridors or linkages function better when the habitat serves the needs of the target species.
- ▶ Heterogeneous terrain and vegetation should be included in the conservation areas.
- ▶ Some geographically isolated populations should be included in the conservation areas to reduce the potential for catastrophic effects.

Land Health. BLM's grazing regulations in Part 43 CFR 4180 require that State Directors, in consultation with Resource Advisory Councils, develop Standards of Rangeland Health and Guidelines for Grazing Management. The grazing regulations require that Standards be in conformance with the "Fundamentals of Rangeland Health" (BLM policy developed in 1993) and that the Standards and Guidelines address each of the "guiding principles" as defined in the regulations. Soon after rangeland health standards and guidelines were developed in the 1990's, the Bureau issued policy requiring BLM land use plans to incorporate land health standards for all activities occurring on public lands. The goal is to improve ecological conditions on the public lands, based upon attainment and maintenance of basic fundamentals for healthy systems.

Cultural Resources. The BLM is responsible for consideration of the effects of its actions on historic properties, regardless of land ownership. These responsibilities are defined under the Antiquities Act of 1906, and the Historic Sites Act of 1935, the National Historic Preservation Act of 1966, the Archaeological Resources Protection Act, and the Native American Graves and Repatriation Act. The 36 CFR 800 procedures relative to the National Historic Preservation Act of 1966 (as amended) will be followed pursuant to the State Protocol Agreement (1998) between the California State Director of the Bureau of Land Management and the California State Historic Preservation Officer.

Native American Consultation. The BLM must take into consideration how its actions may affect Tribal cultural resources and religious values. Executive Orders 12866 of September 30, 1993, 13084 of May 14, 1998, and Executive Memorandum of April 29, 1994 direct Federal agencies to establish formal consultation protocols with Indian tribes to ensure that the rights of sovereign tribal governments are fully respected. The BLM has drafted a formal agreement that establishes this protocol. A signed protocol is in effect between the BLM and the Agua Caliente Band of Cahuilla Indians. Consultation protocols have been submitted for review and discussion with the Augustine Band of Mission Indians, Cabazon Band of Mission Indians, Cahuilla Band of Mission Indians, Morongo Band of Mission Indians, Santa Rosa Band of Mission Indians, and the Torres-Martinez Desert Cahuilla Indians. Per Departmental Manual 3030 DM 2, the BLM is required to make a determination on whether public land activities could impact trust assets. If a potential impact exists, consultation with the tribe must be initiated to mitigate impacts. As the planning area adjoins tribal lands in several locations, an analysis and consultation will be conducted through the planning process.

Clean Water Act. Growing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act, as amended. This law became commonly known as the Clean Water Act. The Act established the basic structure for regulating discharges of pollutants into the waters of the United States. It gave Environmental Protection Agency the authority to implement pollution control programs such as setting wastewater standards for industry and continued requirements to set water quality standards for all contaminants in surface waters. The Act made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. It recognized the need for planning to address the critical problems posed by non-point source pollution. Through the Act, a grant program was established called the State Water Pollution Control Revolving Fund, to address water quality needs by building on Environmental Protection Agency and State partnerships.

California's Porter-Cologne Water Quality Control Act is the principal law governing water quality in the state. This statute established the State Water Resources Control Board and nine Regional Water Quality Control Boards. Together these bodies oversee water policy for all surface waters, wetlands, ground water and for point and non-point pollution sources. The Coachella Valley is part of the Colorado River Basin Region and is under the jurisdiction of the Region 7 Water Quality Control Board. In 1994, this Board issued a Water Quality Control Plan, which identified existing and potential beneficial uses of waters and established water quality objectives to protect these areas. The plan also contains an implementation surveillance and monitoring plan. In 1998 a federal Clean Water Action Plan was initiated to

help states and tribes restore and sustain the health of aquatic systems on a watershed basis. This plan requested that states and Tribes develop a Unified Watershed Assessment (UWA) to guide allocation of new federal resources for watershed protection. The final California Watershed Assessment identified 66 Priority Category I watersheds throughout the state. These watersheds are defined by the Clean Water Action Plan as candidates for increased restoration due to impaired water quality or other impaired natural resource goals. The Coachella Valley is located within the 7,200 square mile Salton Sea Category I watershed.

Clean Air Act. The Coachella Valley is in non-attainment with national air quality standards for ozone and particulate matter. All BLM management decisions within non-attainment areas require a conformity analysis to determine whether the proposed activities could impede state efforts to achieve attainment with national ambient air quality standards. A conformity analysis will be conducted for all relevant alternatives considered in the plan amendment. Any reductions to air quality impacts on the BLM-managed lands may serve as credit for increased air quality impacts elsewhere on the BLM-managed lands.

The San Geronio and San Jacinto wilderness areas, and the wilderness portions of Joshua Tree National Park are designated Class I air quality areas. (The Santa Rosa and San Jacinto Mountains National Monument is a Class II airshed.) Class I areas exceed national standards for air quality and are assigned the most stringent air quality standards in order to protect this status. This plan amendment considers the potential impacts of proposed actions to these Class I airsheds.

1.6.3 Relationship to the Center for Biological Diversity, et al. Lawsuit Settlement

Two closely related lawsuit stipulations with December 31, 2002 as the operative date affect the planning schedule for this CDCA Plan Amendment, one directly and the other indirectly. Both are amendments to previous lawsuit settlement stipulations (Case No. C-00-0927 WHA. U.S. District Court, Northern District of California, San Francisco Division).

Paragraph 5 of *Stipulation and Proposed Order to Amend Prior Stipulations*, approved by U.S. District Court, Northern District of California, San Francisco Division on January 31, 2002, amends the All Further Injunctive Relief Stipulation to require that "BLM will issue a Record of Decision regarding route designation in NECO, NEMO desert tortoise Desert Wildlife Management Areas [DWMAs], and the Coachella Valley by December 31, 2002."

Paragraph 15 amends the Bighorn Sheep Stipulation. This provision reads in part: "If the BLM Record of Decision for the Coachella Valley Multiple Species Habitat Conservation Plan Amendment (CVMSHCP) is not signed by December 31, 2002, BLM will close to vehicles and effectively block by January 1, 2003 all known routes providing unauthorized vehicle access onto the Dunn Road. In the interim, until a BLM Record of Decision for the plan is signed, BLM will, by April 1, 2002, install and maintain signs on all known roads providing access to the Dunn Road that indicate that access to the Dunn Road is prohibited."

The first stipulation amendment requires all route designations to be completed by December 31, 2002. The second stipulation amendment requires implementation of specific route

designations (closures) for Dunn Road and tributary routes, if BLM's plan amendment is not complete by December 31, 2002. In order to allow meaningful public participation, the route designation process must proceed with the plan amendment, and both must be completed by December 31, 2002. Route designation has always been part of the larger BLM plan amendment process, based on the public notice of June 28, 2000, public scoping meetings in July of 2000, and the April 12, 2002 notice addendum describing proposals, alternatives and issues being addressed. To treat route designation separately would require re-initiation of public scoping and the public process relative to the routes. The relationship of route designation to landscape level land management would be lost if the full plan amendment was not completed. For these reasons, route designation remains part of the larger BLM plan amendment process.

The Dunn Road is subject to an existing temporary closure that has been in effect since October 1, 2000 (65 FR 52126-52127). The Dunn Road and tributary routes are also monitored by BLM employees and do not receive general public access now, either because there are no public easements across non-federal land or because they have historically been behind locked gates.

Except for temporary closures issued under 43 CFR §8341.2 and §8364.1, route designations are conducted through the land use planning process with public input in accordance with the regulations at 43 CFR §1610 and §8342.2(a) and 40 CFR §1500. This CDCA Plan Amendment is being prepared in accordance with the regulations at 43 CFR §1610 and §8342.2(a) and 40 CFR §1500, and includes route designation for the Coachella Valley. Route designation in the Dunn Road area is part of a suite of options designed cumulatively to support recovery of bighorn sheep populations while allowing for appropriate public land uses. In reading the two stipulations together, it is necessary to complete this plan amendment by December 31, 2002 in order to accomplish the following:

1. Consideration of a range of alternatives relative to route designation in the Dunn Road vicinity;
2. Integration of route designation into the overall land management program for BLM-managed public lands in the Coachella Valley;
3. Integration of route designation decisions with other components of the overall recovery strategy on public lands within the planning area for bighorn sheep of the Peninsular Ranges;
4. Full public disclosure and participation in the decision making processes described in the three items above; and
5. Compliance with BLM national policy and both lawsuit stipulations, as well as consistency with an already established public planning process.

Absent the lawsuit requirements, the schedule for public review and decision making might have been delayed slightly in order to track very closely with the timing of the non-federal

portion of the Coachella Valley Multiple Species Habitat Conservation Plan / Natural Communities Conservation Plan (CVMSHCP). The BLM has been working closely with the Coachella Valley Association of Governments, the Coachella Valley Mountains Conservancy and the local jurisdictions since 1996 to develop this Draft CDCA Plan Amendment in tandem with the Coachella Valley Multi-Species Habitat Conservation Plan, including coordination of alternatives in areas with intermingled or adjacent jurisdictions. The Coachella Valley CDCA plan amendment provides the framework to support the landscape-level approach to conservation and providing for community needs. Upon completion of the CVMSHCP, the BLM proposes to adopt the CVMSHCP as an activity (implementation) level plan, tiered to BLM's Coachella Valley CDCA plan amendment.

1.6.4 Trails Management Plan Guidance

The Santa Rosa and San Jacinto Mountains Trails Management Plan is being prepared under separate regulatory authority than the CDCA Plan Amendment for the Coachella Valley. This trails management plan is an element of the Coachella Valley Multiple Species Habitat Conservation Area Plan (CVMSHCP), and is an activity level (also known as implementation level) plan prepared in accordance with BLM Manual 8322 and is not subject to the 43 CFR 1610 planning regulations. A Record of Decision for the trails management plan will not be issued until completion of the CVMSHCP. At such time, the BLM portion of the approved trails management plan may be appealed to the Interior Board of Land Appeals in accordance with the regulations at 43 CFR 4.4. The trails management plan must be in conformance with and is tiered to the Coachella Valley CDCA plan amendment under Chapter 2, the section addressing "Hiking, Biking & Equestrian Trails."











In an effort to 'benchmark' the progress made to date through negotiations with the local jurisdictions and wildlife agencies, the BLM is including the trails management plan in this draft environmental impact statement. The purpose and scope of the environmental impact analysis for the trails management plan is to analyze the effect of alternative management strategies for trail use in the Santa Rosa and San Jacinto Mountains, rather than to consider the effects of other types of land uses that may include habitat conversion. Only a summary of impacts is provided at this time. Habitat conversion and land use issues on non-federal lands would be analyzed through the appropriate California Environmental Quality Act process, led by the appropriate jurisdiction and subject to Endangered Species Act compliance.

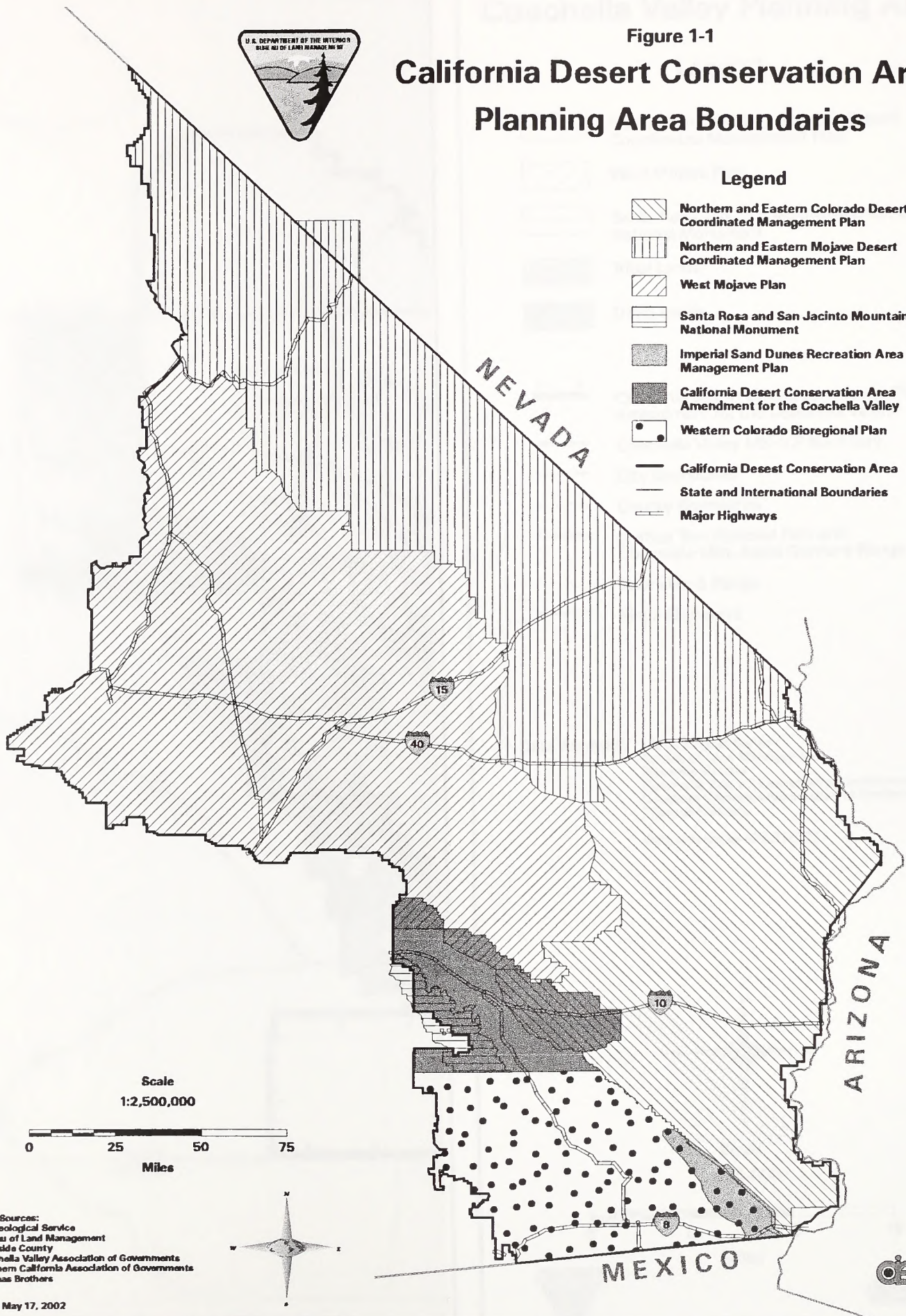


Figure 1-1

California Desert Conservation Area Planning Area Boundaries

Legend

-  Northern and Eastern Colorado Desert Coordinated Management Plan
-  Northern and Eastern Mojave Desert Coordinated Management Plan
-  West Mojave Plan
-  Santa Rosa and San Jacinto Mountains National Monument
-  Imperial Sand Dunes Recreation Area Management Plan
-  California Desert Conservation Area Amendment for the Coachella Valley
-  Western Colorado Bioregional Plan
-  California Desert Conservation Area
-  State and International Boundaries
-  Major Highways



Scale
1:2,500,000

0 25 50 75
Miles

Data Sources:
US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers

Date: May 17, 2002



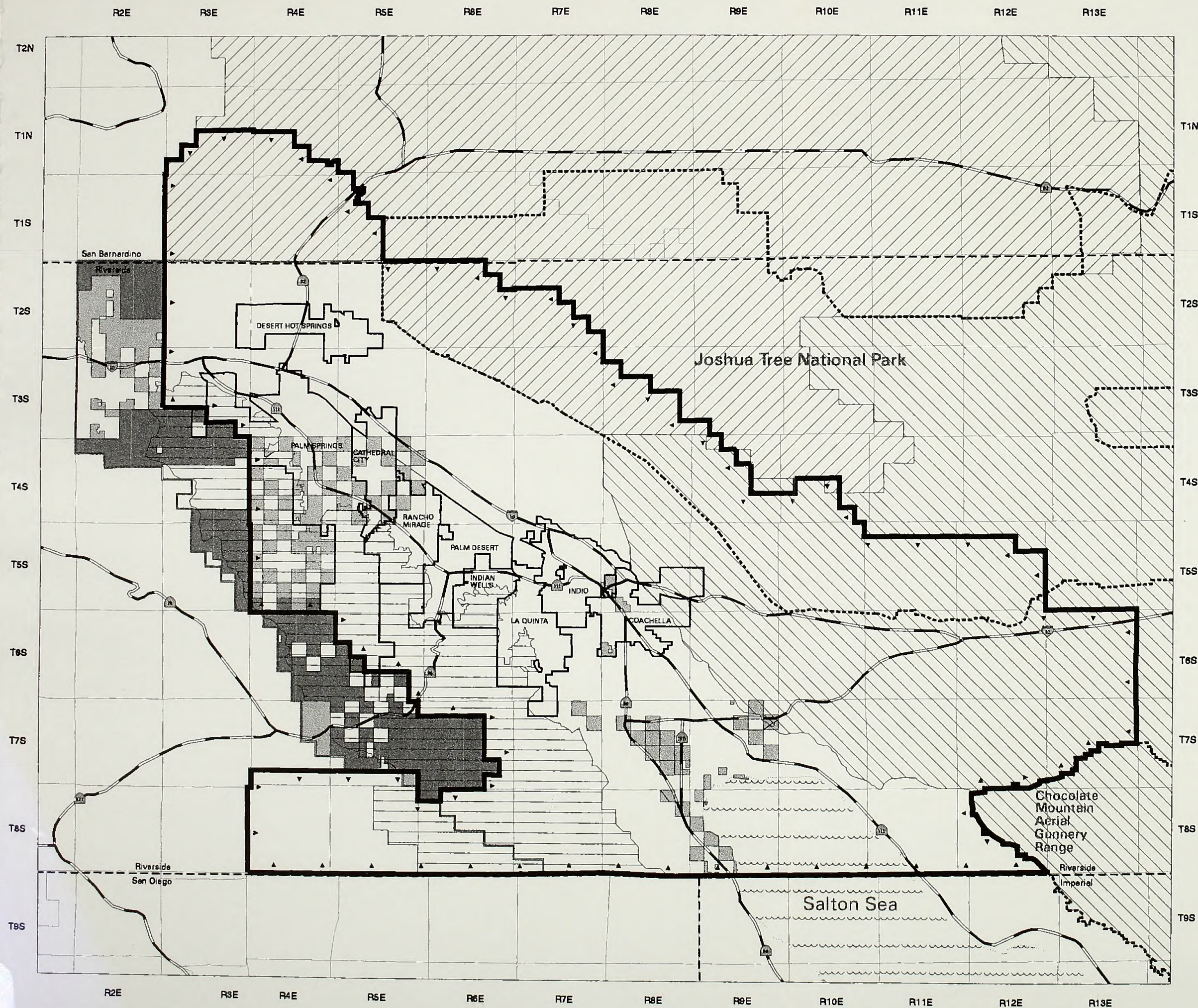


Figure 1-2

Coachella Valley Planning Area

Legend

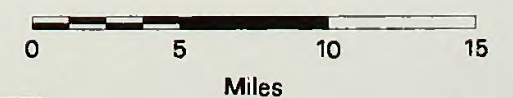
- Northern and Eastern Colorado Desert Coordinated Management Plan
- West Mojave Plan
- Santa Rosa and San Jacinto Mountains National Monument
- Tribal Lands
- USFS Lands
- California Desert Conservation Area Plan Amendment for the Coachella Valley
- Coachella Valley MSHCP Boundary
- City Boundaries
- County Boundaries
- Joshua Tree National Park and Chocolate Mtn. Aerial Gunnery Range
- Township & Range
- Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomson Brothers

Date Current as of 5/7/2002



Scale
1:425,000



Date: May 23, 2002

2.0 ALTERNATIVES

This chapter presents the range of alternatives considered for the Coachella Valley California Desert Conservation Area Plan Amendment and the Santa Rosa and San Jacinto Mountains Trails Management Plan. Both of these plans are subject to environmental review in accordance with the National Environmental Policy Act of 1969 (NEPA) and are sharing the same environmental impact statement; however these plans are prepared under different Bureau planning authorities. A description of these different planning authorities and respective planning procedures follows.

The *Coachella Valley California Desert Conservation Area Plan* (1980, as amended) and any subsequent CDCA plan amendments are land use plans prepared in compliance with Section 202 of the Federal Land Policy and Management Act of 1976 (BLM's organic act) and Title 43 Code of Federal Regulations Part 1610. Land use plans are regional plans which provide general guidance on how the public lands are to be managed and a cumulative impact analysis for the region. The BLM State Director is delegated to approve the proposed plan. Citizens who feel adversely affected by proposed decisions developed through the regional land use plan process may protest those proposed decisions to the Director of the BLM in accordance with the protest procedures outlined in Title 43 Code of Federal Regulations Part 1610.5-2.

The next level of planning, activity or implementation plans, are tiered to the regional land use plan and must be in conformance with the regional land use plan. Implementation plans are more focused on an area or plan element. Implementation plans tend to include site-specific or project-specific actions. Implementation plans are prepared in accordance with BLM's Manual guidance. The Santa Rosa and San Jacinto Trails Management Plan is an activity level plan prepared in accordance with BLM Manual 8322. The BLM Field Manager is delegated to approve the BLM portions of the final plan. Members of the public may appeal implementation level decisions, once they are made, to the Interior Board of Land Appeals in accordance with 43 CFR 4.4.

The range of alternative land use plan actions and implementation actions are presented in both summary table and narrative format. The preferred alternative represents BLM's likely choice for a decision at this time. BLM's final decision may or may not be the preferred alternative, depending on public input and additional information received during the public comment period for the draft EIS. The no action alternative does not mean that no actions or decisions are being made. If BLM were to select the no action alternative, BLM is making the decision to not change the existing decisions promulgated from existing plans.

Each alternative is arranged by plan element. Plan elements are resources or activities about which the public has expressed significant concern. The alternatives provide different approaches for managing a particular plan element. A detailed description of the plan elements is provided in the glossary.

2.1 Coachella Valley California Desert Conservation Area Plan Amendment

2.1.1 General Description of each Alternative

Four alternatives are presented in this California Desert Conservation Area Plan Amendment for the Coachella Valley, labeled Alternative A, Alternative B, Alternative C and Alternative D. Alternatives A through C represent an array of options for each plan element, ranging from less restrictive land use (A) to more restrictive (C). Alternative D is the “no action” alternative. If Alternative D is selected, BLM would be opting to not change any of the decisions outlined in the *California Desert Conservation Area Plan* (1980, as amended) at this time, and to continue with the current management strategy. The BLM preferred alternative consists of an amalgamation of plan elements chosen from three alternatives (A through C). The preferred alternative for each plan element is highlighted in the “Summary of Alternatives” table and identified in the following narrative description of the alternatives.

As this is a plan amendment and not a revision, most of the guidance and land use plan decisions established in the *California Desert Conservation Area Plan* (1980 as amended) shall remain extant. The proposed plan amendment goals and conservation objectives are an addition to the existing CDCA Plan goals and objectives. The land use plan action alternatives identify specific proposed changes to the CDCA Plan, and are not meant to replace all decisions for a particular plan element.

2.1.2 Plan Goals Common to All Alternatives

The preferred alternative incorporates the following goals. Goals define a future desired condition or outcome for a resource or program, in order to resolve resource management issues. During plan implementation, goals serve as benchmarks for determining land use plan conformance. The following goals are a supplement to the goals presented in the *California Desert Conservation Area Plan* (1980, as amended).

1. Ensure a balance of multiple use and sustainable public land uses with progress toward attaining healthy, properly functioning ecosystems.
2. Achieve recovery of listed species, and manage species to avoid future listings.
3. Maintain a network of motorized vehicle routes necessary to meet recreational and other needs while minimizing affects to air quality and other resource values.
4. Provide opportunities for off-highway vehicle free-play in the Coachella Valley where compliance with the Clean Air Act, Clean Water Act, the Endangered Species Act and other environmental laws will be attained.
5. Establish and maintain a network of hiking, biking and equestrian trails that provide opportunities for year-round recreation.
6. Make available public lands to support community infrastructure needs for southern California including energy production, mineral extraction and utilities, while minimizing resource use conflicts and promote species recovery in the plan area as a whole.

7. Work in collaboration with the U.S. Forest Service, Agua Caliente Band of Cahuilla Indians, the State of California and local jurisdictions to conserve the values of, and manage land uses in, the Santa Rosa and San Jacinto Mountains National Monument.
8. Work in collaboration with the Agua Caliente Band of Cahuilla Indians to manage the branded horses in the Indian Canyons effectively and efficiently.
9. Work in collaboration with the Torres Martinez Band of Cahuilla Indians to manage wetland habitats in the Whitewater Delta north of the Salton Sea.
10. Protect the free-flowing characteristics and outstandingly remarkable values of rivers that are eligible and may be suitable for Wild and Scenic River designation, and ensure their tentative classifications as “wild,” “scenic” or “recreational” are not affected.
11. Participate as a federal land management partner with the local Coachella Valley jurisdictions, and contribute to development and implementation of the Coachella Valley Multi-Species Habitat Conservation Plan.
12. Develop an overall strategy for managing the public lands which is adaptable over time based on the results of resource monitoring in order to effectively achieve the above goals.

2.1.3 Land Use Plan Alternatives

2.1.3.1 Wild and Scenic Rivers.

Preferred Alternative (A, B & C). River segments on BLM-managed lands within the following areas are determined eligible for inclusion into the National Wild and Scenic River System with the following tentative classifications (Figure 2-1):

Table 2-1: River Segments Determined Eligible

Area	River Channel	Tentative Classification	Length (miles, BLM lands only)		Location
Whitewater Canyon	Main	Wild	6.5 (wilderness)		T1S R3E, Sec. 30 T2S R3E, Sec. 4, 5, 6, 9, 10, 15
		Recreational	1.6 (non-wilderness)		T2S R3E, Sec. 15, 22, 23, 26
Mission Creek	Main	Wild	3.1 (wilderness)		T1S R3E, Sec. 16, 22, 28
		Recreational	2.1 wilderness	1.4 non-wilderness	T1S R3E, Sec. 34 T2S R3E, Sec. 2 T2S R4E, Sec. 17, 18
	North Fork	Wild	0.4 (wilderness)		T1N R3E, Sec. 32 T1S R3E, Sec. 4
	South Fork	Wild	1.1 (wilderness)		T1S R3E, Sec. 8
	West Fork	Recreational	2.9 (wilderness)		T1S R3E, Sec. 34 T2S R3E, Sec. 2, 3, 11
Palm Canyon	Main	Scenic	1.2 (non-wilderness)		T5S R4E, Sec. 36

Manage public lands within 1/4 mile of the identified river segments to protect their free-flowing characteristics; protect, and to the degree practicable, enhance the Outstandingly Remarkable Values (ORVs) which contribute to their eligibility; and ensure that their eligibility or tentative classification will not be affected before a determination of their suitability or non-suitability as Wild and Scenic Rivers can be made. ORVs are identified in the documentation of eligibility (Appendix B). Protective management measures pending suitability determinations are also described in the same appendix.

Determinations of suitability would be undertaken subsequent to identification of eligible river segments through this CDCA Plan amendment. A separate legislative environmental impact statement would be prepared as part of a separate reporting package and plan amendment.

River segments on BLM-managed lands in Little Morongo Canyon, Big Morongo Canyon, and Whitewater Canyon south of Bonnie Bell were assessed and determined to be ineligible for inclusion into the NWSRS.

No Action Alternative (D). Determinations regarding the eligibility of river segments on BLM-managed lands for inclusion in the National Wild and Scenic River System would not be made at this time.

2.1.3.2 Visual Resource Management.

Preferred Alternative (A, B & C). Based on the general characteristics of the BLM-managed public lands within the Coachella Valley, Visual Resource Management (VRM) classifications would be assigned as follows (Figure 2-2):

Table 2-2: Visual Resource Management Classifications

AREA DESCRIPTION	VRM CLASS	ACREAGE
BLM-managed lands within the Santa Rosa and San Geronio Wilderness Additions	Class 1	91,327
BLM-managed lands within ACECs and the Santa Rosa and San Jacinto Mountains National Monument (except for designated wilderness which is Class 1)	Class 2	94,637
BLM-managed lands within CVMSHCP conservation areas, except for wind energy facilities, and sand and gravel mining sites (see below)	Class 2	
BLM-managed lands associated with existing and future development of wind energy facilities, and sand and gravel mining sites, whether inside or outside the CVMSHCP conservation areas	Class 4	13,727
Remaining BLM-managed lands, other than those in the NECO overlap area	Class 4	
BLM-managed lands within the NECO overlap area	Not assigned	128,350

No Action Alternative (D). No Visual Resource Management classifications would be assigned at this time. Instead, VRM objectives would be established for affected lands on a case-by-case basis when project proposals are submitted to the BLM. In accordance with policy, BLM lands within the Santa Rosa and San Geronio Wilderness Additions are managed consistent with VRM Class 1 objectives.

2.1.3.3 Land Health Standards

Preferred Alternative (A, B & C). Adopt the rangeland health standards developed for livestock grazing in consultation with the California Desert District Advisory Council, for use as regional land health standards. These regional land health standards would apply to all BLM lands and programs, and would be implemented through terms and conditions of permits, leases and other authorizations, actions, resource monitoring, assessments undertaken in accordance with BLM's land use plans. BLM would seek to incorporate these standards into the multi-jurisdictional monitoring program for the CVMSHCP, and to coordinate with local jurisdictions in monitoring and assessment of land health. These standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

1. **Soils.** Soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, geology, landform, and past uses. Adequate infiltration and permeability of soils allow accumulation of soil moisture necessary for optimal plant growth and vigor, and provide a stable watershed. As indicated by:
 - Canopy and ground cover are appropriate for the site;
 - There is diversity of plant species with a variety of root depths;
 - Litter and soil organic matter are present at suitable sites;
 - Maintain the presence of microbiotic soil crusts that are in place;
 - Evidence of wind or water erosion does not exceed natural rates for the site;
 - Hydrologic and nutrient functions maintained by permeability of soil and water infiltration are appropriate for precipitation.
2. **Native Species.** Healthy, productive and diverse habitats for native species, including special status species (Federal T&E, Federal proposed, Federal candidates, BLM sensitive, or California State T&E, and CDD UPAs) are maintained in places of natural occurrence. As indicated by:
 - Photosynthetic and ecological processes continue at levels suitable for the site, season, and precipitation regimes;
 - Plant vigor, nutrient cycle, and energy flow are maintaining desirable plants and ensuring reproduction and recruitment;
 - Plant communities are producing litter within acceptable limits;
 - Age class distribution of plants and animals are sufficient to overcome mortality fluctuations;
 - Distribution and cover of plant species and their habitats allow for reproduction and recovery from localized catastrophic events;
 - Alien and noxious plants and wildlife do not exceed acceptable levels;
 - Appropriate natural disturbances are evident; and
 - Populations and their habitats are sufficiently distributed to prevent the need for listing special status species.

3. **Riparian/ Wetland and Stream Function.** Wetland systems associated with subsurface, running, and standing water, function properly and have the ability to recover from major disturbances. Hydrologic conditions are maintained. As indicated by:
 - Vegetative cover will adequately protect banks, and dissipate energy during peak water flows;
 - Dominant vegetation is an appropriate mixture of vigorous riparian species;
 - Recruitment of preferred species is adequate to sustain the plant community;
 - Stable soils store and release water slowly;
 - Plant species present indicate soil moisture characteristics are being maintained;
 - There is minimal cover of invader/shallow-rooted species, and they are not displacing deep-rooted native species;
 - Maintain shading of stream courses and water sources for riparian dependent species;
 - Stream is in balance with water and sediment being supplied by the watershed;
 - Stream channel size and meander is appropriate for soils, geology, and landscape; &
 - Adequate organic matter (litter and standing dead plant material) is present to protect the site and to replenish soil nutrients through decomposition.
4. **Water quality.** Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California State standards. Best Management Practices would be implemented to help achieve these standards. Achievement of standards would be indicated by:
 - Chemical constituents, water temperature, nutrient loads, fecal coliform, turbidity, suspended sediment and dissolved oxygen do not exceed the applicable requirements.
 - Achievement of the standards for riparian, wetlands and water bodies;
 - Aquatic organisms and plants (e.g., macro invertebrates, fish, algae and plants) indicate support for beneficial uses; and
 - Monitoring results or other data that show water quality is meeting the standards.

No Action Alternative (D). Adopt the rangeland National Fallback Standards as regional land health standards. These regional land health standards would apply to all BLM lands and programs, and would be implemented through terms and conditions of permits, leases and other authorizations or actions undertaken in accordance with BLM's land use plans. These standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

1. **Soils.** Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform.
2. **Riparian/ Wetland.** Riparian-wetland areas are in properly functioning condition.
3. **Stream Function.** Stream channel morphology (including but not limited to gradient, width/depth ratio, channel roughness and sinuosity) and functions are appropriate for the climate and landform.
4. **Native Species.** Healthy, productive and diverse populations of native species exist and are maintained.

2.1.3.4 Air Quality

Activities on the BLM-managed lands must be in compliance with the objectives of the Clean Air Act, and Federal and State standards. Compliance with State Implementation Plans prepared by the Air Quality Management District would help to achieve the Federal and State standards. The following are alternative BLM strategies to facilitate compliance with the Coachella Valley PM10 State Implementation Plan in effect at the time of approval.

Alternative A. BLM's air quality management strategy would consist of the following:

- Install sand fencing where fencing can assist in reducing PM10 emissions and maintain habitat for sand dependent species.
- Authorized uses would be subject to the Coachella Valley PM10 State Implementation Plan and would include applicable measures to minimize fugitive dust emissions.

Preferred Alternative (B & C). Implement the air quality management strategy summarized below and presented in (Appendix C):

- Reduce the number of unpaved routes upwind of sensitive receptors.
- Manage unauthorized off-road use by posting signs and enforcing closures. Provide opportunities for OHV use away from sensitive receptors.
- Install sand fencing where fencing can assist in reducing PM10 emissions and maintain habitat for sand dependent species.
- Authorized uses would include terms and conditions to minimize fugitive dust emissions, based on the Coachella Valley PM10 State Implementation Plan. Proposed projects with the potential to exceed National Ambient Air Quality Standards shall include in the site-specific environmental analysis, a dust control plan prepared in coordination with the South Coast Air Quality Management District.

No Action Alternative (D). Authorized uses would include terms and conditions to minimize fugitive dust emissions, based on the Coachella Valley PM10 State Implementation Plan. Proposed projects with the potential to exceed National Ambient Air Quality Standards shall include in the site-specific environmental analysis, a dust control plan prepared in coordination with the South Coast Air Quality Management District.

2.1.3.5 Multiple Use Classification

Public lands are assigned a multiple use classification (MUC) according to the allowable level of multiple use. Class C (Controlled Use) designation is the most restrictive, and is assigned to wilderness with minimal levels of multiple use. Class L (Limited Use) lands are managed to provide lower-intensity, carefully controlled multiple use of resources while ensuring that sensitive values are not significantly diminished. Class M (Moderate Use) lands are managed to provide for a wider variety of uses such as mining, livestock grazing, recreation, utilities and energy development, while conserving desert resources and mitigating damages permitted uses may cause. Class I (Intensive Use) provides for concentrated uses of lands and resources to meet human needs.

Alternative A. Classify BLM-managed lands within wilderness areas as Multiple-Use Class “C” (Controlled Use). Classify BLM-managed lands within conservation areas and outside wilderness as Multiple-Use Class “L” (Limited Use), except for those within the Windy Point, Indio Hills (both units), and Iron Door OHV open areas which would be classified as Multiple-Use Class “I” (Intensive Use). Classify BLM-managed lands outside conservation areas as Multiple-Use Class “M” (Moderate Use), except for those within the Drop 31 OHV open area which would be classified as Multiple-Use Class “I.” BLM-managed lands within the identified sand and gravel mining areas would be classified as Multiple-Use Class “I” as an exception to these management prescriptions.

Preferred Alternative (B). Same as Alternative A, except that BLM-managed lands at Windy Point (partial), Indio Hills (east unit only), and Iron Door would be classified as Multiple-Use “L”; BLM-managed lands within the remainder of Windy Point and Indio Hills (west unit only) would be classified as Multiple-Use Class “M” (Figure 2-3a).

Alternative C. Same as Alternative B except that BLM-managed lands at Drop 31 would be classified as Multiple-Use Class “M,” and sand and gravel mining areas would be classified as Multiple-Use Class “L” within conservation areas and Class “M” outside of conservation areas.

No Action Alternative (D). BLM Multiple-Use classifications would remain unchanged (Figure 2-3b).

Table 2-3: Alternative Multiple Use Classification Acreages

Multiple Use Classification	Alternative A Acreage	Alternative B Acreage	Alternative C Acreage	Alternative D Acreage
C - Controlled Use	160,550	160,550	160,550	160,550
L - Limited Use	144,492	146,448	148,680	92,087
M - Moderate Use	15,510	15,910	18,811	24,505
I - Intensive Use	7,489	5,133	n/a	n/a
Unclassified	n/a	n/a	n/a	49,862

2.1.3.6 Habitat Conservation Objectives

For the purposes of this Coachella Valley CDCA Plan Amendment, the BLM lands were categorized into eight vegetation community types: (1) sand dunes and sand fields, (2) desert scrub communities, (3) chaparral communities, (4) desert alkali scrub communities, (5) marsh communities, (6) dry wash woodland and mesquite communities, (7) riparian communities, and (8) woodland and forest communities. Conservation objectives were established based on

the resource needs for each community type. The term “conservation areas” refers to areas with a special area designation in order to protect biological resources, such as Areas of Critical Environmental Concern, Wildlife Habitat Management Areas, Santa Rosa and San Jacinto Mountains National Monument, and BLM managed lands within the conservation system approved by BLM in support of the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP).

Preferred Alternative (B & C). For each of the eight vegetation community types (Figure 2-4), the habitat conservation objectives outlined in Table 2-4 would be used to assess compatible uses and to develop appropriate mitigation measures within conservation areas on BLM-managed lands. Future activities would be required to conform to the habitat conservation objectives established for a particular community type within the conservation areas. Activities which cannot meet the habitat conservation objectives would be disallowed. New utilities within utility corridors would be designed to avoid impacts to sensitive plants, endemic species and their habitats, and significant cultural resources.

Application of the Habitat Conservation Objectives would utilize BLM's normal processes for evaluating and managing proposed land uses. For example, on receipt of an application, BLM would conduct interdisciplinary analysis to determine the effects of the proposal, to inform the consultation and decision making processes, and to develop mitigation measures for projects which are approved. The analysis team would use the objectives as both a standard for assessing the proposal and as a basis for development of mitigation measures.

No Action Alternative (A & D). Guidelines provided in the CDCA Plan, as amended would be used to determine allowable uses within conservation areas.

2.1.3.7 Fire Management

Preferred Alternative (B & C). Response to wildland fire is based on ecological, social and legal consequences of the fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and other values to be protected dictate the appropriate management response to the fire. Based on these factors, the following fire management categories are identified for the following vegetation communities (Figure 2-5):

Fire Management Category A. The following communities are areas where fire would not be desired at all: sand dunes and sand fields. Immediate suppression is a critical element of fire management in these desert environments because fire historically has never played a large role in the development and maintenance of the ecosystem.

Fire Management Category B. The following vegetation communities are areas where wildfire is not desired: (1) desert scrub, (2) desert alkali scrub, (3) marsh, (4) dry wash woodland, pinyon-juniper woodland and mesquite, and (5) riparian areas. Immediate suppression is a critical element of fire management in these desert communities because fire historically has never played a large role in the development and

maintenance of these communities. Prescribed fire may be utilized as a resource management tool in very select situations, for example to effectively manage exotic vegetation.

Fire Management Category C. (1) Oak woodlands and forest communities and (2) chaparral communities are areas where wildland fire (including prescribed burning) may be allowed. The following constraints must be considered in determining the appropriate level of suppression: (1) emphasize protection of life and property, especially trail users and montane communities, (2) evaluate potential beneficial or adverse effects on threatened and endangered species habitat, especially endemic species, (3) evaluate potential for adverse effects to significant or sensitive cultural and other natural resources, (4) promote mosaic pattern of vegetation resulting from different fire histories within the larger landscape, (5) protect areas so that they do not burn at less than 15 year intervals.

No Action Alternative (A & D). No habitats would be categorized at this time. Manage fire in accordance with CDCA Plan (1980, as amended) and the California Desert District-wide Fire Management Plan.

2.1.3.8 Special Area Designations

Special areas, those in need of special management attention, may be designated as such through a variety of mechanisms and titles. Wilderness Areas are designated legislatively and are the most restrictive in terms of allowable uses. National Monuments may be designated legislatively or by Presidential order. The level of use restrictions within National Monuments can be established by the law, executive order or through a collaborative planning process. Areas of Critical Environmental Concern (ACECs) are designated through the BLM land use planning process in accordance with 43 CFR 1610.7-2 for the protection of natural and cultural resources and human health and safety. The level of allowable use within an ACEC is established through the collaborative planning process. Designation of an ACEC allows for resource use limitations in order to protect identified resources or values. ACECs are subject to stricter guidelines to support their designation.

Wildlife habitat management areas (WHMAs) are an administrative designation (BLM Manual 6780) also established through the 43 CFR 1610 land use planning process. WHMA are designed to identify areas requiring special management attention for the protection of important wildlife resources. Establishment of a WHMA may include a more intensive, active management program. In practice, both ACECs and WHMAs can achieve the same resource condition objectives. However, ACEC designation often connotes a higher level of political sensitivity and public awareness.

Preferred Alternative (A). Designate BLM-managed lands within the CVMSHCP conservation areas which are outside existing ACECs, Wilderness Areas, National Monuments and freeway interchanges in the NECO overlap area as the Coachella Valley Wildlife Habitat Management Area (WHMA) (Figure 2-6a). Existing ACEC boundaries would remain unchanged.

Alternative B. Expand Dos Palmas ACEC to include public lands within the Dos Palmas CVMSHCP conservation sub-area. Designate the Mission Creek ACEC to include public lands within the Upper Mission Creek conservation sub-area. Designate remaining BLM-managed lands within the CVMSHCP conservation areas and outside ACECs and existing Wilderness Areas and National Monuments as the Coachella Valley WHMA (Figure 2-6b).

Alternative C. Designate BLM-managed lands within the CVMSHCP conservation areas, and outside existing ACECs, Wilderness Areas and National Monuments as the Coachella Valley ACEC (Figure 2-6c).

No Action Alternative (D). No BLM-managed lands would be given additional designations beyond those currently listed in the CDCA Plan as amended and those established by law. Existing ACEC boundaries shall remain unchanged.

Table 2-5: Alternative Special Area Designation Acreages

Special Area Designation	Alternative A Acreage	Alternative B Acreage	Alternative C Acreage	Alternative D Acreage
Potential ACECs	0	7,292	23,631	0
Potential Wildlife Habitat Mgt Area	23,631	16,338	0	0
Existing ACECs	51,190	51,190	51,190	51,190
Wilderness Areas	91,327 acres; Set by law and not changeable through planning			
National Mon.	86,400 acres; Set by law and not changeable through planning			

2.1.3.9 Land Tenure: Exchange & Sale Criteria

Land tenure refers to ownership of a parcel of land. BLM-managed public lands are owned by the United States Government as the land steward for the citizens of the United States. Land tenure adjustments can be made through a couple of mechanisms. BLM lands acquired through acquisition are purchased from willing sellers or are donated by members of the public. Monies for acquisition are generally appropriated by Congress through the Lands and Water Conservation Fund. Land may also be acquired through exchange in which the private landowner proposes “offered lands” and identifies BLM-managed “selected lands” for exchange. All proposed land exchanges are subject to environmental review in accordance with the National Environmental Policy Act of 1969 and other environmental laws, are subject to public review and input, and are subject to land appraisals, to ensure the proposed exchange is in the public’s best interest. Selected BLM lands will be evaluated for presence of mineral resources and significant cultural and Native American sites. If found, these values will be compensated, mitigated or not available for exchange in accordance with law, regulation, and policy. BLM may also sell unclassified public lands.

All land exchange, sale and acquisition proposals are discretionary Bureau actions, depending on overall Bureau priorities and resource capabilities at the time. In other words, even if a proposed land exchange meets all of the criteria listed below, the BLM authorized officer may opt to not consider the land exchange at that time.

Preferred Alternative (B & C). BLM lands in the Coachella Valley would generally be retained in public ownership. The following criteria would be applied in evaluating the suitability of land exchanges and sales. Land sales would only be conducted if reasonable opportunities for land exchange are not available in order to provide land base in support of the CVMSHCP. Land exchanges and sales may be considered if they would:

1. Facilitate effective and efficient management of conservation areas;
2. Be conducted in coordination with the local jurisdictions;
3. Would result in a net benefit to the conservation areas or divert intensive uses away from sensitive areas;
4. Not remove endemic species nor rare habitat types from conservation management;
5. Not dispose of eligible historic properties from public ownership except for stewardship transfer to Native American Tribes of Native American historic properties; and
6. Not divest of public domain lands in a manner which eliminates a significant public benefit.

Proposed exchanges or sales would be conducted in coordination with the local jurisdictions to ensure the proposed exchange would meet the larger multi-jurisdictional objectives of habitat conservation and support to local communities in the Coachella Valley. All land exchanges and sales would be subject to consultation requirements under the Endangered Species Act. Disposal of specific parcels through exchange or sale may require biological or cultural field surveys in order to complete consultation. Site specific application of the criteria and determinations identifying necessary surveys would occur once project proposals are received.

The following is an example of how these criteria may be employed. Public lands in the Coachella Valley with significant sand and gravel resources have especially high monetary values. If such parcels were selected for a proposed exchange, the offered lands must be within the conservation areas, and the offered lands would help to block up the public land ownership pattern, thereby facilitating effective and efficient management of the conservation areas. The selected BLM parcels may not contain endemic species, rare habitat types, nor historic properties. The exchange may be designed such that sand and gravel resources on selected BLM parcel would continue to be available to support community needs, providing it meets environmental and zoning requirements administered by Riverside County. In summary, an exchange which benefits assembly and management of conservation areas, as well as providing for community needs for materials to support home construction and road maintenance, could be approved.

No Action Alternative (A & D). Public land disposal will be considered on a case-by-case basis in accordance with the CDCA Plan (1980 as amended). Class C, L and I lands may be exchanged, but not sold.

2.1.3.10 Land Tenure: Acquisition Criteria

Preferred Alternative (B & C). Acquisition proposals are discretionary Bureau actions, depending on overall Bureau priorities and resource capabilities at the time. Acquisition proposals would be required to meet the following criteria. Proposed acquisitions would:

1. Be acquired from willing sellers only;
2. Be conducted in coordination with the local jurisdictions;
3. Benefit the Coachella Valley conservation areas by directly augmenting public ownership in a sensitive area or diverting intensive uses away from sensitive areas; or
4. Improve the presence of a variety of biotic or abiotic habitat components under conservation management;

No Action Alternative (A & D). Acquisitions would be considered on a case-by-case basis in accordance with the CDCA Plan 1980 as amended.

2.1.3.11 Management of Acquired Lands and Formerly Withdrawn Lands

Preferred Alternative (A, B & C). Lands acquired by purchase, donation or lands removed from withdrawal status shall be managed in accordance with the CDCA Plan, as amended and the applicable land and mineral laws upon issuance of an opening order published in the *Federal Register*. Lands located within the boundaries of ACECs or any other area having an administrative designation established through the land use planning process shall become part of the area within which they are located and managed accordingly upon issuance of the opening order.

No Action Alternative (D). Acquired and formerly withdrawn lands are not subject to the applicable land and minerals laws until an opening order is issued by BLM and published in the *Federal Register* (43 CFR 2091.6 and 2091.8)

2.1.3.12 Communication Sites & Utilities

Alternative A. Rights-of-way for new and renewals of windparks, communications sites, and utilities would be considered within conservation areas, if habitat conservation objectives could be met using appropriate mitigation measures.

Preferred Alternative (B). Windpark development would be permitted in designated areas (Figure 2-7) and new towers within existing communication sites on a space available basis and consistent with habitat conservation objectives using appropriate mitigation measures.

Proposed utilities within designated utility corridors and within conservation areas may be considered, consistent with the habitat conservation objectives. Proposed utilities would be designed or mitigation measures imposed to ensure new utilities within conservation areas avoid impacts to sensitive plants, endemic species and their habitats, and to significant cultural resources.

Alternative C. No new communication sites nor windparks within CVMSHCP conservation areas. Renewals would be considered on a case-by-case basis consistent with habitat conservation objectives. Retire inactive windpark sites. Proposed utilities within designated utility corridors and within conservation areas may be considered, consistent with the habitat conservation objectives. Proposed utilities would be designed or mitigation measures imposed to ensure new utilities within conservation areas avoid impacts to sensitive plants, endemic species and their habitats, and to significant cultural resources.

No Action Alternative D. Rights-of-way for new windparks, renewals of existing windparks, communications sites, and utilities will be considered on a space available basis in conformance with CDCA Plan, as amended.

2.1.3.13 Sand and Gravel Mining

Alternative A. Saleable mineral material extraction would be allowed within CVMSHCP conservation areas and outside of Areas of Critical Environmental Concern, if habitat conservation objectives could be met using appropriate mitigation measures.

Preferred Alternative (B). Mineral materials sales within the CVMSHCP conservation areas would be restricted to State of California Division of Mines and Geology designated resource areas (Figure 2-7), and new mining proposals would be allowed if habitat conservation objectives could be met using appropriate mitigation measures. Outside the conservation areas, mining may be considered consistent with federal laws and regulations.

Alternative C. BLM lands within the CVMSHCP conservation areas would be closed to saleable mineral material extraction.

No Action Alternative (D). Saleable mining actions would be considered on a case-by-case basis in accordance with the CDCA Plan (1980 as amended).

2.1.3.14 Livestock Grazing

Preferred Alternative (A). Discontinue grazing on Whitewater Canyon allotment (Figure 2-8) pending completion of a study within the next 10 years that assesses livestock grazing compatibility with conservation of the desert tortoise, arroyo toad, riparian values, and with use of, and access to, intermingled private lands. Following study completion, conduct NEPA analysis of management alternatives intended to conserve and provide for these resources and values consistent with the study and subsequently issue a grazing decision that implements compatible management provisions.

Alternative B. Retire that portion of the Whitewater Canyon grazing allotment north of the San Bernardino/Riverside County Line. Adjust season of use and grazing capacity accordingly.

Alternative C. Retire the entire Whitewater Canyon grazing allotment.

No Action Alternative (D). Current management of the Whitewater Canyon grazing allotment as provided in the CDCA Plan, as amended.

2.1.3.15 Wild Horse and Burro Program

The Palm Canyon Herd Management Area encompasses 11,500 acres, located immediately south of the City of Palm Springs, and wholly within the Santa Rosa and San Jacinto Mountains National Monument. Land ownership within this HMA is 21% BLM, 26% Agua Caliente Band of Cahuilla Indians tribal lands (ACBCI), 14% San Bernardino National Forest, and 39% private. The BLM portion of the HMA is located in T. 5 S., R. 4 E., sections 22, 23, 26, 27, 34 and 35. The Palm Canyon herd management level is set at six horses. There currently are eight horses within this HMA. Only one of these horses qualifies as a “wild horse” (the oldest mare) per the Wild Horse and Burro Act. The rest are illegally released freeze-branded horses, or offspring of these branded horses. The herd is currently being watered by Dos Palmas Spring, a developed spring located on Agua Caliente Band of Cahuilla Indian land and maintained by the Tribe. Due to the spring, the horses appear to spend most of their time on tribal land. These horses forage on public, private and Tribal lands, and have created conflicts with equestrian trail users due to the aggressiveness of the herd stallion, and potential habitat conflicts with the peninsular ranges bighorn sheep. There also may be sentiments within the Agua Caliente Tribal membership to maintain these animals, at least on Tribal lands. The BLM would like to work closely with the Agua Caliente Band of Cahuilla Indians to determine the future of these horses. The BLM has already entered into a cooperative management agreement with the Tribe for management of the National Monument. Santa Rosa and San Jacinto Mountains National Monument Act of 2000 authorized the Secretary of the Interior to exchange lands with the Tribe.

The Morongo Herd Management Area is located approximately 15 miles northwest of the City of Palm Springs. This 39,100 acre HMA is composed of 65% BLM lands and 35% private lands. Much of this HMA is now within the San Gorgonio Wilderness. The HMA level is set at 16 burros. There are currently no burros within this HMA .

Alternative A. Retain Palm Canyon and Morongo Herd Management Area (HMA) designations. Maintain levels set in accordance with current CDCA Plan, as amended. Establish Palm Canyon HMA as a grazing allotment for branded horses.

Preferred Alternative (B). Retire Palm Canyon & Morongo HMAs. BLM parcels within and adjacent to the Palm Canyon HMA (T.5 S., R.4 E.) and T.4 S., R. 4 E. would be transferred to the Agua Caliente Tribe via land exchange, in accordance with the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (Figure 2-9). Amend existing MOU to allow BLM to

provide management assistance for horses on tribal lands until such time as the Tribe chooses to no longer maintain a horse herd.

Alternative C. Retire Palm Canyon and Morongo HMAs. Remove existing animals from BLM-managed lands.

No Action Alternative (D). Retain Palm Canyon and Morongo and Herd Management Areas (HMA) designations. Levels set at six and 16 animals, respectively in accordance with current CDCA Plan, as amended.

2.1.3.16 Motorized-Vehicle Area Designations

Areas open, limited, and closed to motorized-vehicle access are clearly-defined areas designated through the land use planning process. In open areas, vehicle travel is permitted anywhere if the vehicle is operated responsibly in accordance with regulations (43 CFR Subparts 8341 and 8343), and is subject to permission of private land owners if applicable. In limited areas, motorized-vehicle access is allowed only on certain routes of travel; at the minimum, use is restricted to existing routes. In closed areas, vehicle travel is not allowed.

As required by 43 CFR §8342.1, the designation of public lands as either open, limited, or closed to off-highway vehicles (OHVs) shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:

- (a) Areas shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
- (b) Areas shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- (c) Areas shall be located to minimize conflicts between off-highway vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
- (d) Open or limited use areas shall not be located in officially designated wilderness areas or primitive areas. Open or limited use areas shall be located in natural areas only if the authorized officer determines that off-highway vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

Alternative A.

- Establish four OHV Open Areas described as follows (Figure 2-10a):
 - Windy Point** T.3 S., R.3 E., Section 14, E2E2; Section 23, N2; Section 24, N2N2, SW4NW4
 - Indio Hills** T.3 S., R.5 E, Section 26, N2, N2SE4; T.3 S., R.6 E, Section 32, all;
 - Iron Door** T.5 S., R.8 E., Section 6, all;
 - Drop 31** T.7 S., R.10 E., Section 24, all; Section 26, N2E2; T. 7 S., R.11 E., Section 30 all.
- Drop 31 would be managed in accordance with objectives outlined below for the Meccacopia Special Recreation Management Area.
- Indian Avenue Preserve and Willow Hole-Edom Hill would be designated “closed.”
- Big Morongo Canyon ACEC and Dos Palmas ACEC would remain “closed.”
- All other BLM-managed public lands within the CVMSHCP conservation areas would remain “limited.”
- Wilderness areas are closed to casual motorized-vehicle use by statute.

Table 2-6a: Motorized Vehicle Area Designations - Alternative A

Open OHV Areas	Closed OHV Areas	Limited OHV Areas
Windy Point - 680 acres	Big Morongo Canyon Preserve - 20,559 acres	Motorized-vehicle use in the remainder of CVMSHCP conservation areas is limited to approved routes
Drop 31 - 1,440 acres	Dos Palmas Preserve - 7,160 acres	
Iron Door - 640 acres	Indian Ave Preserve - 1,175 acres	
Indio Hills - 1,040 acres (two separate units)	Willow Hole/Edom Hill Preserve - 1,863 acres	
	Wilderness - 160,551 acres	
Total - 3,800 acres	Total - 191,308 acres	Total - 135,408 acres

Preferred Alternative (B).

- Establish Drop 31 as an OHV Open Area (see description above under Alternative A); manage in accordance with objectives outlined below for the Meccacopia Special Recreation Management Area.
- Windy Point south of Highway 111 would be designated “closed” (Figure 2-10b).
- Indian Avenue Preserve and Willow Hole-Edom Hill would be designated “closed.”
- Big Morongo Canyon ACEC and Dos Palmas ACEC would remain “closed.”
- The expanded area of Dos Palmas ACEC would be additionally be designated “closed.”
- All other BLM-managed public lands within the CVMSHCP conservation areas would remain “limited.”
- Wilderness areas are closed to casual motorized-vehicle use by statute.

Table 2-6b: Motorized Vehicle Area Designations - Alternative B

Open OHV Areas	Closed OHV Areas	Limited OHV Areas
Drop 31 - 1,440 acres	Big Morongo Canyon ACEC - 20,559 acres	Motorized-vehicle use in the remainder of CVMSHCP conservation areas is limited to approved routes
	Dos Palmas ACEC - 7,160 acres	
	Additions to Dos Palmas ACEC - 2,706	
	Indian Ave Preserve - 1,175 acres	
	Willow Hole/Edom Hill Preserve - 1,863 acres	
	Windy Point - 270 acres	
	Wilderness - 160,551 acres	
Total - 1,440 acres	Total- 194,284 acres	Total - 134,792 acres

- Work with the Off-Highway Motor Vehicle Recreation Division of the California Department of Parks and Recreation to establish a vehicle free-play area north of Interstate 10 and east of Dillon Road on acquired lands as an outlet and opportunity for displaced off-highway vehicle users.

Alternative C.

- Windy Point south of Highway 111 would be designated "closed."
- Indian Avenue Preserve and Willow Hole-Edom Hill would be designated "closed."
- Big Morongo Canyon ACEC and Dos Palmas ACEC would remain "closed."
- All other BLM-managed public lands within the CVMSHCP conservation areas would remain as "limited."
- Wilderness areas are closed to casual motorized-vehicle use by statute.

Table 2-6c: Motorized Vehicle Area Designations - Alternative C

Open OHV Areas	Closed OHV Areas	Limited OHV Areas
None	Big Morongo Canyon ACEC - 20,559 acres	Motorized-vehicle use in the remainder of CVMSHCP conservation areas is limited to approved routes
	Dos Palmas ACEC - 7,160 acres	
	Indian Ave Preserve - 1,175 acres	
	Willow Hole/Edom Hill Preserve - 1,863 acres	
	Windy Point - 270 acres	
	Wilderness - 160,551 acres	
Total - 0 acres	Total- 191,578 acres	Total - 138,938 acres

Alternative D.

- No new area closures nor off-highway vehicle open areas would be established at this time.
- Big Morongo Canyon ACEC and Dos Palmas ACEC would remain “closed.”
- Wilderness areas are closed to casual motorized-vehicle use by statute.

Table 2-6d: Motorized Vehicle Area Designations - Alternative D

Open OHV Areas	Closed OHV Areas	Limited OHV Areas
None	Big Morongo Canyon ACEC - 20,559 acres	Motorized-vehicle use in the remainder of CVMSHCP conservation areas is limited to approved routes
	Dos Palmas ACEC - 7,160 acres	
	Wilderness - 160,551 acres	
Total - 0 acres	Total - 188,270 acres	Total - 142,246 acres

2.1.3.17 Motorized-Vehicle Access: Route Designations

Casual use of public lands in the context of motorized-vehicle access is defined as the use of routes not requiring a specific authorization. Authorized use in such context is the use of routes approved through a permitting process for specific activities (e.g., rights-of-way issued for development of communication sites or wind energy facilities). The designation of routes as “open,” “limited,” and “closed” is generally applicable to both casual and authorized users of BLM-managed lands. However, where there is a requirement for access associated with an authorized use but it is determined that unlimited casual use may cause undesirable resource impacts, routes will be designated “closed” and available for use only by the authorized party. In such circumstances, the authorized use of a “closed” route usually limits this use in some manner or requires mitigation in some form. It is anticipated that few routes will be available for use only by authorized parties. Access for the use and enjoyment of private lands will be addressed on a case-by-case basis where private landowners are adversely affected by route designation decisions.

Route designations apply only to routes and portions thereof on BLM-managed lands. These designations constitute CDCA Plan decisions. Changes to these decisions would require amending the CDCA Plan.

As required by 43 CFR §8342.1, all route designations shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:

- (a) Routes shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
- (b) Routes shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- (c) Routes shall be located to minimize conflicts between off-highway vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
- (d) Routes shall not be located in officially designated wilderness areas or primitive areas. Routes shall be located in natural areas only if the authorized officer determines that off-highway vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

Alternative A. Existing routes outside areas closed to casual motorized-vehicle use would be designated as “open” (Figure 2-11a).

Table 2-7a: Motorized Vehicle Route Designations - Alternative A

Total miles open to motorized vehicles (BLM lands only)	71
Total miles closed to motorized vehicles (BLM lands only)	66

Maintain the public route network as needed and seek legal access across private land parcels from willing sellers in areas designated for public recreation. Manage vehicle access in the Dunn Road area (including the Dry Wash route and routes in Palm Canyon, totaling 15 miles on public land) primarily for administrative purposes such as flood control, law enforcement, search and rescue, fire control, and permitted uses such as research and commercial recreation, subject to permission of private landowners for use of non-federal lands.

Alternative B. Routes within CVMSHCP conservation areas would be designated in accordance with habitat conservation objectives and air quality management strategy, while allowing for recreation opportunities. Routes outside the conservation areas would be designated “open” except for redundant routes which would be “closed” to minimize air quality non-attainment in the Coachella Valley (Figure 2-11b). Off-road travel on public lands would not be allowed except in designated “open” areas. Short recreational spur roads west of the Indio air quality monitoring station would be closed.

Maintain the public route network as needed and seek legal access across private land parcels from willing sellers in areas designated for public recreation. Manage vehicle access in the Dunn Road area (including the Dry Wash route and routes in Palm Canyon, totaling 15 miles on public land) for administrative purposes such as flood control, law enforcement, search and rescue, and fire control, as well as controlled levels of permitted uses such as research and commercial recreation, subject to permission of private landowners for use of non-federal lands.

Existing gates would be maintained on **Dunn Road** and new gates would be installed to preclude unauthorized access from the Royal Carrizo area. Public land portions of Dunn Road, Dry Wash Road, and the access route from Royal Carrizo would be closed except for administrative and permitted access until bighorn sheep populations recover. The designation of these roads may be re-evaluated at that time. Permitted use may include limited research and recreational access by permit, contingent on acquiring access across private lands and compliance with the terms of a biological opinion. Motorized commercial recreational access would be confined to the fall months and both activities and the areas to be visited would be designed to avoid conflicts with bighorn sheep recovery, in consultation with the U.S. Fish and Wildlife Service. Legal access to landowners and agencies may be provided through a right-of-way grant with terms and conditions based upon a biological opinion. Temporary landowner access may be authorized by permit.

Table 2-7b: Motorized Vehicle Route Designations - Alternative B

Total miles open to motorized vehicles (BLM lands only)	45
Total miles closed to motorized vehicles (BLM lands only)	92
Additional miles closed relative to Alternative A	26

Alternative C. Same as Alternative B except less emphasis would be placed on opportunities for recreation. Additional routes would be closed to minimize air quality non-attainment in the Coachella Valley (Figure 2-11c).

Table 2-7c: Motorized Vehicle Route Designations - Alternative C

Total miles open to motorized vehicles (BLM lands only)	25
Total miles closed to motorized vehicles (BLM lands only)	112
Additional miles closed relative to Alternative A	46
Additional miles closed relative to Alternative B	20

Maintain the public route network as needed and seek legal access across private land parcels from willing sellers in areas needed to maintain the route network. Manage vehicle access in the Dunn Road area (including the Dry Wash route and routes in Palm Canyon, totaling 15 miles on public land) in a manner that allows routes to naturally reclaim over time. Where the routes are passable, allow administrative vehicle access for flood control, law enforcement, search and rescue, and fire control.

Alternative D. Motorized-vehicle access would continue on existing routes outside areas closed to casual motorized-vehicle use, unless otherwise closed through supplemental rules (Figure 2-11d). Route designation would not occur at this time. Routes within the Santa Rosa and San Jacinto Mountains National Monument must be designated by October 2003 in accordance with the Monument Act.

Table 2-7d: Motorized Vehicle Route Designations - Alternative D

Total miles open to motorized vehicles (BLM lands only)	71
Total miles closed to motorized vehicles (BLM lands only)	66

Maintain the public route network as needed and seek legal access across private land parcels from willing sellers in areas designated for public recreation. Manage vehicle access in the Dunn Road area (including the Dry Wash route and routes in Palm Canyon, totaling 15 miles on public land) for administrative purposes such as flood control, law enforcement, search and rescue, fire control, research and commercial recreational uses.

2.1.3.18 Special Recreation Management Area

Special Recreation Management Areas (SRMA) are designated where significant public recreation issues or management concerns occur. Special or more intensive types of management are typically needed. Detailed recreation planning is usually required through preparation of a Recreation Area Management Plan (RAMP), and greater managerial investment (e.g. facilities, supervision, etc.) is likely.

Alternative A. An SRMA which includes the Mecca Hills and Orocopia Mountains Wildernesses, Drop 31, and the Red Canyon Jeep Trail would be designated and named the Meccacopia Special Recreation Management Area (Figure 2-10b). As part of the overall Meccacopia SRMA management strategy to be addressed through the RAMP:

- a) Protect wilderness values to include minimizing motorized vehicle and mechanized equipment intrusions into the Mecca Hills and Orocopia Mountains Wildernesses.
- b) Enhance the quality of motorized recreation on public lands surrounding the two wilderness areas by providing adequate facilities and management to direct use and protect environmental values.
- c) Enhance the quality of non-motorized recreation on public lands by minimizing the potential for conflicts with motorized vehicles, and providing adequate facilities and management to direct use and protect environmental values.

Preferred Alternative (B). An SRMA which includes the Mecca Hills and Orocopia Mountains Wildernesses, Drop 31, and the Red Canyon Jeep Trail would be designated and named the Meccacopia Special Recreation Management Area (Figure 2-10b). As part of the overall Meccacopia SRMA management strategy:

- a) Protect wilderness values to include minimizing motorized vehicle and mechanized equipment intrusions into the Mecca Hills and Orocopia Mountains Wildernesses.
- b) Enhance the quality of motorized recreation on public lands surrounding the two wilderness areas and wildlife watering zones (see “d” below) by providing adequate facilities and management to direct use and protect environmental values.
- c) Enhance the quality of non-motorized recreation on public lands by minimizing the potential for conflicts with motorized vehicles, and providing adequate facilities and management to direct use and protect environmental values.
- d) Construct and maintain additional water sources with limited vehicle access to

discourage bighorn sheep from using the Coachella Canal and to minimize conflicts with off-highway vehicle users. Development of water sources inside wilderness areas would be consistent with limits and guidelines established in the Northern and Eastern Colorado Desert (NECO) Plan. Also per the NECO Plan, additional guzzlers in wilderness may be considered upon completion of the relevant meta-population plan by the California Department of Fish and Game. Wildlife water sources outside wilderness could be developed based on analysis and approval of site specific proposals developed in consultation with California Department of Fish and Game.

Alternative C. An SRMA which includes the Mecca Hills and Orocopia Mountains Wildernesses, and the Red Canyon Jeep Trail would be designated and named the Meccacopia Special Recreation Management Area (Figure 2-10b). As part of the overall Meccacopia SRMA management strategy:

- a) Protect wilderness values to include minimizing motorized vehicle and mechanized equipment intrusions into the Mecca Hills and Orocopia Mountains Wildernesses.
- b) Enhance the quality of motorized recreation on public lands surrounding the two wilderness areas by providing adequate facilities and management to direct use and protect environmental values.
- c) Enhance the quality of non-motorized recreation on public lands by minimizing the potential for conflicts with motorized vehicles, and providing adequate facilities and management to direct use and protect environmental values.
- d) Close areas where vehicle use is significantly limiting or preventing wildlife access to water.

No Action Alternative (D). No SRMA would be designated at this time. Management would continue based on existing uses and designations.

2.1.3.19 Recreation: Stopping, Parking, and Vehicle Camping

This plan element describes the maximum distance which motorized vehicles may pull off an approved route to stop, park, or camp. For all of these alternatives, the following exception applies: *Where wilderness boundaries are coincident with approved routes, stopping, parking, and vehicle camping must remain outside the wilderness boundary.*

Preferred Alternative (A & B). Stopping, parking, and vehicle camping would be allowed within 100 feet from the *centerline* of an approved route except where fenced.

Alternative C. Stopping, parking, and vehicle camping would be allowed within 300 feet from the *centerline* of an approved route except within ACECs and conservation areas where the limit would be 30 feet for stopping and parking. Vehicle camping within CVMShCP conservation areas would not be allowed.

No Action Alternative (D). Stopping, parking, and vehicle camping would be allowed within 300 feet of a route of travel except within ACECs where the limit would be 100 feet.

2.1.3.20 Recovery Strategy for Peninsular Ranges Bighorn Sheep

This plan element describes the overall management strategy BLM proposes and alternative strategies for achieving recovery of the Peninsular Ranges bighorn sheep. These alternative recovery strategies were developed based on guidance provided in the *Peninsular Ranges Bighorn Sheep Recovery Plan* (October, 2000), and many of the ideas and proposals contributed by Federal, State, and local agencies, as well as academic researchers, conservation organizations, private individuals, and major land users. While recovery plans do provide relevant advice and recommendations, recovery plans are not land use plan decision documents and are therefore exempt from review in accordance with the National Environmental Policy Act of 1969 (NEPA). BLM is required to develop land management alternatives for achieving recovery, analyze their effects, provide opportunity for public review and comment, and then adopt land management decisions which relate various land uses to species recovery. The alternatives developed through this land use plan amendment are closely tied to the bighorn sheep recovery plan as indicated in Chapter 1. The page numbers indicated below refer to the bighorn sheep recovery plan.

Land Use Plan Decisions Common to All Alternatives. Adopt a recovery strategy for Peninsular Ranges bighorn sheep habitat on BLM-administered public lands. Part of the bighorn sheep recovery strategy would include the following decisions which are common to all alternatives:

1. Acquire, or exchange to acquire, bighorn sheep habitat from willing landowners (p.75).
2. Manage aircraft activities to reduce or eliminate habitat fragmentation or interference with bighorn sheep resource use patterns (p. 89). A working group of the Desert Managers Group has been established to address interagency coordination issues on an ongoing basis.
3. Develop and implement education and public awareness programs (pp. 104-107).
4. Reduce or eliminate wild horse populations from bighorn sheep habitat.
5. Implement a fire management plan in fire adapted habitats to help maintain bighorn sheep habitat (p.78).
6. Manage road use to reduce or eliminate habitat fragmentation or interference with bighorn sheep resource use patterns (p. 89).
7. Participate in the development of an interagency trails management plan for the Santa Rosa and San Jacinto Mountains. This plan would be finalized in accordance with Bureau guidance on multi-jurisdictional activity level plans. The goal of this trails management plan would be to provide for reasonable opportunities for recreational trail use while facilitating recovery of Peninsular Ranges bighorn sheep. Actions developed through this trails plan would be subject to change through a multi-jurisdictional adaptive management and monitoring program. Until the trails plan is finalized, the terms of the interim biological evaluation filed with the U.S. Fish and Wildlife Service on January 31, 2001, and as amended on February 6, 2001 to reflect designation of critical habitat, would apply.

While general research permitting requirements are already established in the CDCA Plan (1980, as amended), no framework for managing levels of disturbance to bighorn sheep by

research activities on public lands has been described. Alternative management directions specific to bighorn sheep research and monitoring are addressed below. The following alternatives also address issues not described above which require more detailed decisions to establish a management direction.

Alternative A. Approach recovery by emphasizing restoration of natural resources that support the sheep's basic physical and biological needs. Make public lands available for testing other measures if they are proposed by the U.S. Fish and Wildlife Service or California Department of Fish and Game.

1. Concentrate efforts to maintain existing water sources and provide additional water sources on public lands on methods that restore natural sources (e.g. tamarisk removal). Installation of artificial waters would not be considered until restoration efforts are substantially complete.
2. Construct fences across public lands to exclude bighorn sheep from urban area where they have begun or may begin using urban sources of food and water.
3. Permit research activities that require helicopter use and direct handling or contact with sheep, in consultation with Fish and Wildlife Service and California Department of Fish and Game, providing stipulations to mitigate potential adverse impacts. (1) helicopter use would be allowed during lambing season and in BLM wilderness areas, (2) helicopters would be routinely used to retrieve dead sheep and lambs during and outside the lambing season on BLM-managed lands, instead of relying primarily on ground searches, and (3) theoretical/academic research would be allowed, including manipulative methods that included intensional disturbances.
4. Distribute information on review of research and monitoring activities. Prepare an annual report describing the results of bighorn sheep monitoring and research activities on public land to support adaptive management, enhance understanding of human/sheep interactions, understand habitat relationships, understand predator relationships, and clarify factors affecting population trends.
5. Make public lands available for predator control if proposed by Fish and Wildlife Service and California Department of Fish and Game.
6. Make public lands available for reintroduction and augmentation activities. Work in consultation with Fish and Wildlife Service and California Department of Fish and Game.

Preferred Alternative (B). Approach recovery by emphasizing reduction in overall levels of disturbance distributed as equitably as possible across all land uses and testing measures to address levels of mortality and augment population, while providing more resources to support the sheep's basic physical and biological needs.

1. Maintain existing water sources and provide additional water sources on public lands. Maintaining water would involve water source restoration, primarily through tamarisk removal. Installation of artificial waters would be conducted in carefully selected locations between Highway 74 and Palm Canyon.
2. Construct fences to exclude bighorn sheep from urban area where there is clear

evidence of regular and repeated movement of sheep into developed urban areas, but only once adequate water sources are assured above the proposed fence alignment.

3. BLM will seek to reduce impacts resulting from all land uses including trail use, motorized vehicles, permitted uses, utility corridors, communication sites, a variety of casual uses, and research. The aforementioned trails management plan includes a more detailed strategy to reduce disturbances to bighorn sheep from casual and permitted trail uses. This CDCA plan amendment addresses motorized vehicle access which includes all forms of motorized vehicle use, including closed or limited access for certain routes. Permitted uses would be subject to environmental review and conformance with the habitat conservation objectives established through the CDCA plan amendment, as well as endangered species consultation under the Endangered Species Act if the use would likely result in a may affect determination to bighorn sheep or critical habitat. No actions for mining, communication sites, grazing allotments, or utility corridors are proposed through the CDCA plan amendment because the activities are not located within essential habitat for Peninsular Ranges bighorn sheep within the planning area.
4. Review research and monitoring proposals and annual reports describing the results of bighorn sheep monitoring and research activities on public land to ensure that the research supports the recovery of the sheep. The report will also include planned or proposed research and monitoring activities for the coming year. Permits and proposals for research on public land may be subject to 30-day public review and comment.
5. Work with the Fish and Wildlife Service and California Department of Fish and Game to develop and implement research and monitoring techniques that are less reliant on helicopters and/or direct handling of wild sheep. When analyzing sheep research proposals that include public lands and require use of helicopters, close proximity of researchers, or direct handling, always consider (a) less disturbing techniques if they are available and (b) the value of the information to be provided to public land management and sheep recovery decision making processes.
6. Work with Fish and Wildlife Service and California Department of Fish and Game to develop actions to implement a five year study to examine the role of Mountain lion predation in determining the population dynamics of bighorn sheep, and develop appropriate management options between Highway 74 and Palm Canyon.
7. Work with Fish and Wildlife Service and California Department of Fish and Game to develop actions to safely test the effectiveness of reintroduction and augmentation activities on public lands in the vicinity of Snow Creek on the north side of San Jacinto Mountain.

Alternative C. Approach recovery by emphasizing natural processes with very limited management intervention, except to provide more water.

1. Concentrate efforts to provide additional water sources on public lands through installation of artificial waters.
2. Construct fences across public lands to exclude bighorn sheep from urban area when

public lands are a small but necessary part of completing a fence across other ownerships.

3. Research and monitoring activities would be allowed. Review and analysis would be on a case-by case basis, contingent on the following parameters: (a) No more than 15 sheep would be captured on the BLM lands; (b) No captures would be allowed in designated Wilderness Areas on BLM land. (c) No lambs would be captured during the lambing season on BLM land to reduce disturbance to ewes and lambs during the lambing season. (d) No more than 5 dead sheep would be retrieved by helicopter from the BLM lands during the lambing season (January 1 -June 30).
4. Consider permitting predator control on public lands only with substantial evidence tying significant bighorn sheep predation losses to an individual animal.
5. Make public lands available for reintroduction and augmentation activities. Work in consultation with Fish and Wildlife Service and California Department of Fish and Game.

No Action Alternative (D). Continuation of current management in accordance with the CDCA Plan (1980, as amended).

1. Continue efforts to control tamarisk. Artificial waters may be considered on a case-by-case basis.
2. Fence construction may be considered on a case-by-case basis.
3. Research and monitoring proposals may be considered on a case-by-case basis.
4. Public lands may be considered for reintroduction, augmentation, or predator control after analysis and public comment.

2.1.3.21 Hiking, Biking & Equestrian Trails

Preferred Alternative (A, B & C). Manage trail segments across public lands in coordination with members of the public, local jurisdictions, State and other Federal agencies to provide for a year-round suite of non-motorized recreation opportunities on interconnected trails in the Coachella Valley and surrounding mountains. Non-motorized uses of the public lands within the Coachella Valley planning area may be limited, including area and trail closures, as needed to protect sensitive resources. New trails which avoid impacts to sensitive resources and are developed in coordination with the community may be allowed.

No Action Alternative. Non-motorized uses of the public lands and development of new trails would be allowed, in accordance with Federal law and regulation.

2.1.4 Plan Maintenance

Several of these CDCA Plan Amendment alternatives are contingent upon the conservation boundary established through the CVMSHCP. Most of the CVMSHCP conservation boundary has been largely delineated. Areas still under discussion between the local jurisdictions, CDFG and the USFWS do not involve BLM-managed public lands. If BLM chooses any alternatives contingent on the CVMSHCP conservation boundary, BLM would still be able to definitively establish management direction for the BLM-managed public lands. The BLM would use the CVMSHCP preferred alternative conservation boundary delineated as of the date of the Record of Decision for the BLM CDCA Plan Amendment. The final CVMSHCP boundary would be updated in the CDCA Plan Amendment through plan maintenance (43 CFR 1610.5-4) as uses or restrictions on the BLM-managed public lands would not change. In the event that the CVMSHCP is not completed, the land use designations established for the BLM-managed lands through this CDCA Plan Amendment would remain extant, until such time a subsequent CDCA Plan Amendment was deemed necessary.

2.1.5 Plan Implementation

All activities on the BLM-managed public lands within the California Desert Conservation Area (CDCA) must be in conformance with the approved CDCA Plan (1980, as amended) (43 CFR 1610.5-3). New proposed activities, including actions implementing the CDCA Plan, are subject to further environmental review in accordance with the National Environmental Policy Act of 1969 (NEPA). These environmental documents may tier to the environmental impact statement (EIS) prepared for this CDCA Plan Amendment to provide the cumulative impact analysis for proposed activities. These proposed activities are also subject to laws, regulations and policies which provide guidance on how to protect sensitive resources, as site specific projects are implemented in conformance with the approved plan. The following is a summary of the more pertinent laws, regulations and policies relative to the CDCA Plan, 1980 as amended.

Table 2-8: Policy and Management Guidance for Plan Implementation

ELEMENT	POLICY and MANAGEMENT GUIDANCE
Plan Monitoring	In accordance with BLM planning manual guidance, BLM shall monitor and evaluate the continued effectiveness of the CDCA Plan, as amended, in meeting the goals and objectives of the CVMSHCP and other multiple uses in the Coachella Valley.
Valid Existing Rights	Disposal of parcels with existing land use authorizations will be subject to valid existing rights. Subsequent BLM actions may not have the effect of terminating any validly issued right-of-way, or customary operation, maintenance, repair and replacement activities in such rights-of-way issued in accordance with Section 509(a) and 701(a) of FLPMA.
Sensitive Species	In order to minimize adverse impacts to sensitive species and to avoid future listings, the BLM would confer or consult as necessary, with the US Fish and Wildlife Service on all sensitive species.

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ELEMENT	POLICY and MANAGEMENT GUIDANCE
Cultural Resources	All management actions shall comply with the National Historic Preservation Act of 1966, which provides for the protection of significant cultural resources. In furtherance of this Act, the 36 CFR 800 procedures shall be conducted pursuant to the State Protocol Agreement (1998) between the BLM and the California State Historic Preservation Officer. An appropriate level of inventory shall be conducted for all actions with a potential to affect cultural resources.
Native American Concerns	For all public land activities adjacent to reservation lands, the BLM shall consult with the relevant tribes to determine potential impact to Native American trust assets and cultural values and to develop mitigation measures if needed.
Mining and Utility Proposals	Proposed extraction sites and new utility sites shall be surveyed for cultural resources, and sensitive, threatened and endangered species prior to approval and appropriately mitigated.
Land Exchanges, Sales and Acquisitions	All land exchange, sale and acquisition proposals are discretionary Bureau actions, depending on overall Bureau priorities and resource capabilities at the time. Selected BLM lands will be evaluated for presence of mineral resources and significant cultural and Native American sites. If found, these values will be compensated, mitigated or not available for exchange in accordance with law, regulation, and policy.
Management of Lands Acquired through Exchange	Lands acquired by exchange shall be managed in accordance with existing regulations and provisions of applicable land use plans. Lands acquired by exchange located within the boundaries of ACECs or any other area having an administrative designation established through the land use planning process shall become part of the area within which they are located and managed accordingly. No further action is necessary (43 CFR 2200.0-6(g).)
Management of Withdrawn Lands	<p>Withdrawn lands are public lands withheld from settlement, sale, location or entry under some or all of the general land laws in order to reserve the area for a particular public purpose; or transferring jurisdiction over an area of Federal land from one department, bureau or agency to another (43 CFR 2300.0-5(h).) Withdrawals are instituted through Acts of Congress or approved by the Secretary of the Interior.</p> <p>BLM has no management responsibility over withdrawn lands resulting in jurisdictional transfer to another agency. For example, public lands withdrawn to the Bureau of Reclamation are administered by BOR, which is responsible for ensuring compliance with applicable Federal laws and regulations, such as the National Environmental Policy Act, the Endangered Species Act, etc.</p> <p>Withdrawals approved by the Secretary are discretionary and shall be reviewed two years prior to their expiration. During withdrawal review, the Secretary shall determine if the lands are being used appropriately for the purposes of the withdrawal, assess compliance with the regulations and consider other factors, before making a decision to extend or terminate the withdrawal (43 CFR 2310.4.) Withdrawals instituted by Act of Congress terminate as specified in the statute (43 CFR 2091.5-6). Lands removed from withdrawn status are not subject to the applicable BLM land and minerals laws until an opening order is published in the <i>Federal Register</i> (43 CFR 2091.6).</p>

2.2 Santa Rosa and San Jacinto Mountains Trails Management Plan

This Santa Rosa and San Jacinto Mountains Trails Management Plan is being prepared as an element of the Coachella Valley Multiple Species Habitat Conservation Area Plan (CVMSHCP). In an effort to ‘benchmark’ the progress made to date through negotiations with the local jurisdictions and wildlife agencies, the BLM is including the trails management plan in this draft environmental impact statement. The purpose and scope of the environmental impact analysis for the trails management plan is to analyze the effect of alternative management strategies for trail use in the Santa Rosa and San Jacinto Mountains, rather than to consider the effects of other types of land uses that may include habitat conversion. Only a summary of impacts is provided at this time. Habitat conversion and land use issues on non-federal lands would be analyzed through the appropriate California Environmental Quality Act process, led by the appropriate jurisdiction and subject to Endangered Species Act compliance.

BLM’s decisions for the trails management plan would be issued upon completion of the CVMSHCP, separate from the Coachella Valley CDCA plan amendment decisions. From a Bureau perspective, the trails management plan is an activity level (also known as implementation level) plan prepared in accordance with BLM Manual 8322. Activity level plans are more focused on an area or plan element, and include site-specific or project-specific actions. The trails management plan must be in conformance with and is tiered to the Coachella Valley CDCA plan amendment under the section addressing “Hiking, Biking & Equestrian Trails” above. The BLM Field Manager is delegated to approve the BLM portion of the completed trails plan. Members of the public may appeal activity level decisions, once they are made, to the Interior Board of Land Appeals in accordance with 43 CFR 4.4. The BLM preferred alternative for the trails management plan consists of Alternative B.

2.2.1 Alternative A

Use of private lands for various purposes (e.g., hiking, mountain biking, horseback riding, camping, new trail development, trail rerouting, trail removal, commercial activities, and competitive events) would be at the discretion of the landowner. Where needed, acquisition of land from willing sellers and/or easements from willing grantors would be pursued, dependent on available funding. Activities on State lands would be subject to California Code of Regulations. Activities on tribal lands would be subject to approval of the Agua Caliente Band of Cahuilla Indians. Trails on tribal lands would not be subject to the management prescriptions herein identified, but are considered relative to trail connectivity and network viability. Where federal permits (including *special recreation permits*) are required, they will be issued through BLM's regulatory process and will comply with NEPA and the ESA.

I. TRAIL USE

- Individuals would be requested to voluntarily refrain from using trails in essential bighorn sheep habitat from **February 15 to September 30**.

**Primary trails subject to the voluntary trail avoidance program,
February 15 through September 30**

East of Palm Canyon

- Skyline Trail (eastern trailhead is located at Desert Riders Park at the western terminus of the Museum Trail)

South Palm Springs

- Clara Burgess Trail
- Dry Wash Trail
- Fern Canyon Trail
- Vandeventer Trail
- Hahn Buena Vista Trail

Cathedral City / Rancho Mirage

- Cathedral Canyon Trail
- Dunn Road, except from Cathedral City Cove to the second BLM gate in Section 5, T5S, R5E

Palm Desert

- Art Smith Trail
- Carrizo Canyon Trail
- Schey Trail

La Quinta

- Bear Creek Canyon Trail, except for the segment in Section 13, T6S, R6E (immediately south of La Quinta Cove)
- Bear Creek Oasis Trail
- Guadalupe Trail
- Boo Hoff Trail

All other trails within bighorn sheep essential habitat would also be subject to the voluntary trail avoidance program, except those identified in the following table as open year round.

- Certain trails would be exempt from the Voluntary Trail Avoidance program and available for use year-round.

Primary trails excepted from the voluntary trail avoidance program.

These trails are open year round.

East of Palm Canyon

- ▶ Pacific Crest National Scenic Trail – closed to mountain bikes
- ▶ North Lykken Trail
- ▶ Museum Trail
- ▶ South Lykken Trail
- ▶ Picnic Table Trail (located east of the South Lykken Trail)

South Palm Springs

- ▶ Araby Trail
- ▶ Shannon Trail
- ▶ Berns Trail
- ▶ Garstin Trail
- ▶ Henderson Trail
- ▶ Alexander Trail
- ▶ Goat Trails
- ▶ Eagle Canyon Trail
- ▶ Wild Horse Trail
- ▶ Andreas Hills connector trails with the Wild Horse Trail
- ▶ Palm Canyon Trail
- ▶ Indian Potrero Trail
- ▶ Potrero Canyon Trail

Cathedral City / Rancho Mirage

- ▶ Dunn Road from Cathedral City Cove to the second BLM gate in Section 5, T5S, R5E
- ▶ Bighorn Overlook Trail
- ▶ Mirage Trail (Bump and Grind) to the flat overlook

Palm Desert

Eisenhower Mountain Trail (access through *The Living Desert*)

La Quinta

- ▶ Segment of Bear Creek Canyon Trail in Section 13, T6S, R6E (immediately south of La Quinta Cove)
- ▶ La Quinta Cove to Lake Cahuilla Trail (includes the Morrow Trail and a portion of the Boo Hoff Trail)

Southern Santa Rosa Mountains

- ▶ Cactus Spring Trail
- ▶ Martinez Canyon Trail

U.S. Forest Service lands

All trails in essential bighorn sheep habitat

- Individuals would be requested to venture no more than 100 feet from trails for purposes of resting, nature study, or other similar activities.

- The Santa Rosa Wilderness Area is closed to mechanized forms of transport, including mountain bikes and hang gliders, in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994.
- All trail use within essential bighorn sheep habitat would be subject to monitoring to assess impacts of trail use on bighorn sheep.
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, trails would be open year-round for non-motorized use subject to existing regulations.
- Implementation of the voluntary trail avoidance program would be undertaken upon approval of the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Communities Conservation Plan.

II. CROSS-COUNTRY TRAVEL

- Individuals would be requested to voluntarily refrain from traveling cross-country in essential bighorn sheep habitat from **February 15 to September 30**.
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, cross-country travel would be allowed year-round subject to existing regulations.

III. CAMPING

- Individuals would be requested to voluntarily refrain from camping in essential bighorn sheep habitat from **February 15 to September 30**, except along trails not subject to the voluntary trail avoidance program (see "TRAIL USE").
- From **February 15 to September 30** in essential bighorn sheep habitat, individuals would be requested to camp no more than 100 feet from trails that are not subject to the voluntary trail avoidance program (see "TRAIL USE").
- Individuals would be required to camp *at least* 1/4 mile from water sources throughout the year.
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, camping would be allowed subject to existing regulations.

IV. DOGS

- In essential bighorn sheep habitat, dogs would be allowed only in designated areas.
- Dog owners would be required to keep dogs under restraint to ensure they do not freely roam.
- Leash restrictions would be enforced by city, state, and federal agencies.
- The following areas in essential bighorn sheep habitat would be approved for entry with dogs on leashes:
 - West of Cathedral City Cove
 - Homme-Adams Park and adjacent lands in Palm Desert
 - An area south of La Quinta Cove and outside designated critical bighorn sheep habitat would be open to entry with dogs
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, dogs would be allowed subject to existing regulations.

Exceptions to the prohibition of dogs

Persons requiring accompaniment by a seeing-eye dog, and those using dogs to facilitate search and rescue or law enforcement operations are exempt from the prohibition. The prohibition also does not apply to dogs inside a motor vehicle.

V. NEW TRAIL DEVELOPMENT

- Proposals for new trail development inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis.
- Trail construction in essential bighorn sheep habitat may only occur October 1 to February 14.

VI. TRAIL REROUTING

- Proposals for trail reroutes in essential bighorn sheep habitat would be considered on a case-by-case basis, with the following criteria applied:
 - Benefits to bighorn sheep or other sensitive wildlife would occur
 - Protection of other resource values (e.g., cultural resources, soils) would be considered.
 - Habitat use and distribution data support decisions.
- Trail re-routing in essential bighorn sheep habitat may only occur October 1 to February 14.
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, proposals for trail reroutes would be addressed on a case-by-case basis.

VII. TRAIL DECOMMISSION AND REMOVAL

- Proposals to decommission and remove trails inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis.
- Trail removal in essential bighorn sheep habitat may only occur October 1 to February 14.

VIII. MURRAY HILL FACILITIES

- Picnic tables and equestrian hitching posts at the summit of Murray Hill would remain in place.

IX. NONCOMMERCIAL, NONCOMPETITIVE ORGANIZED GROUP ACTIVITIES

- Noncommercial, noncompetitive organized groups would be requested to voluntarily refrain from using trails in essential bighorn sheep habitat from **February 15 to September 30**, except for trails that are not subject to the voluntary trail avoidance program (see ATRAIL USE@).
- Noncommercial, noncompetitive organized groups of 10 to 24 individuals would be requested to obtain a free permit for activities in essential bighorn sheep habitat throughout **January 1 – December 31**.
- Noncommercial, noncompetitive organized groups of 16 to 24 individuals would be requested to break into groups with no more than 15 individuals in any one group, and attempt to maintain at least 2-mile separation between groups when entering designated wilderness areas.
- Noncommercial, noncompetitive organized group of 25 or more individuals would be required to obtain a *special recreation permit* from the BLM when recreating on BLM-managed lands in bighorn sheep habitat, except when exemptions apply.

- *Special Recreation Permits* would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by the BLM and in consultation with the USFWS would be mandatory.
- All permits would be issued only for use of trails and areas where and when the voluntary trail and cross-country avoidance programs are not in effect.
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, noncommercial, noncompetitive organized group activities would be allowed on BLM-managed land, subject to existing regulations.

X. NON-MOTORIZED COMMERCIAL RECREATION ACTIVITIES

- Non-motorized commercial recreation activities may be permitted in essential bighorn sheep habitat where and when the voluntary trail avoidance program does not apply.
- A *special recreation permit* would be required for non-motorized commercial recreation activities on BLM-managed lands in the Santa Rosa and San Jacinto Mountains except when exemptions apply.
- *Special Recreation Permits* would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by the BLM and in consultation with the USFWS would be mandatory.

XI. MOTORIZED COMMERCIAL RECREATION ACTIVITIES

- Motorized commercial recreation activities would be prohibited year-round in essential bighorn sheep habitat except on Dunn Road.
 - ***Dunn Road:*** Motorized commercial recreation activities may be permitted **October 1 to February 14** only on BLM-managed portions of Dunn Road, subject to issuance of a *special recreation permit*.
- A *special recreation permit* would be required for motorized commercial recreation activities on BLM-managed lands, including vending associated with recreational use, except when exemptions apply.
- *Special Recreation Permits* would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by the BLM and in consultation with the USFWS would be mandatory.

XII. COMPETITIVE RECREATION EVENTS

- Competitive recreation events may be permitted in bighorn sheep habitat where and when the voluntary trail avoidance program does not apply.
- A *special recreation permit* would be required for all competitive recreation use of BLM-managed lands, except when exemptions apply (see Appendix X).
- *Special Recreation Permits* would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by the BLM and in consultation with the USFWS would be mandatory.

XIII. MOTORIZED-VEHICLE USE OF TRAILS

- Motorized vehicles would be prohibited on all trails in the Santa Rosa and San Jacinto Mountains except for motorized vehicles specifically approved for trail maintenance and construction projects.
- Approval for use of trails by motorized vehicles for trail maintenance projects in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis.
- Motorized-vehicle use of trails may be authorized only where and when the voluntary trail avoidance program is not in effect.

XIV. PUBLIC OUTREACH

- An information and education program addressing all management prescriptions herein described, upon approval, would be implemented.

2.2.2 Proposed Preferred Alternative B

Use of private lands for various purposes (e.g., hiking, mountain biking, horseback riding, camping, new trail development, trail rerouting, trail removal, commercial activities, and competitive events) would be at the discretion of the landowner. Where needed, acquisition of land from willing sellers and/or easements from willing grantors would be pursued, dependent on available funding. Activities on State land would be subject to California Code of Regulations. Activities on tribal lands would be subject to approval of the Agua Caliente Band of Cahuilla Indians. Trails on tribal lands would not be subject to the management prescriptions herein identified, but have been considered relative to trail connectivity and network viability.

Not all trails in the Santa Rosa and San Jacinto Mountains have been mapped. Thus, in order to encompass trails not mapped but where use may result in impacts to bighorn sheep, Seasonal Trail Areas were delineated. These Seasonal Trails Areas were derived using the bighorn sheep location database from the USFWS (updated October 2000). Using a geographic information system (GIS), these points were plotted on a map of the Santa Rosa and San Jacinto Mountains. Next, the critical habitat line was added with the known trails network and the planning area boundary. We examined the pattern of bighorn sheep data points and drew a line, inside critical habitat, encompassing the majority of bighorn locations. Areas excluded from the analysis include lands under Tribal ownership, peripheral trails along the urban interface, and trails above 4500 feet, the upper elevation provided by the USFWS habitat model for bighorn sheep. The Seasonal Trail Areas encompass a total of 135,617 acres within the Santa Rosa and San Jacinto Mountains National Monument. Although, designated critical habitat was initially used as the boundary of the Seasonal Trail Areas, which was changed to *essential* habitat. Critical habitat and essential habitat are both based on biological needs of a particular species or population but differs from a regulatory perspective. Essential habitat is an informative designation intended to provide scientific guidance to cooperating agencies and the public, whereas critical habitat is statutorily defined with implementing regulations that govern Federal agency activity. The two lines are very similar.

Some trails within the Seasonal Trail Areas would be designated open on a limited basis and included in the monitoring plan to study the impacts of trail use on bighorn sheep. The Trails Management Plan would be subject to annual evaluation and review by the Trails Management Committee. This committee would consist of agency, city, county, and local user group representatives. Information to be considered yearly would include spatial analysis of bighorn sheep habitat use patterns, total trail use, annual bighorn sheep survey results, and basic demographic information including annual recruitment, survival, sex ratios etc.

I. TRAIL USE

Non-motorized activities would be prohibited in Seasonal Trail Areas from January 15 to June 30 except for the Art Smith Trail, which would be open Tuesdays and Sundays of each week and the Boo Hoff Trail, which would be open Saturday and Tuesdays of each week, during the non-peak lambing season (January 15-February 15 and May 1-June 30). In addition, certain trails would be posted as "closed" from July 1 through September 30 to ensure access to water by bighorn sheep and other wildlife (see table below for list of trails closed during the hot season).

Trails in Seasonal Trail Areas subject to closure January 15 – June 30

Seasonal Trail Areas and primary trails located therein subject to closure from January 15 to June 30:

(1) West of Snow Creek (5,584 acres)

no primary trails

(2) Snow Creek to Tramway Road (10,185 acres)

no primary trails

(3) West of Palm Springs (9,568 acres)

Skyline Trail (eastern trailhead is located at Desert Riders Park at the western terminus of the Museum Trail)

(4) Murray Hill complex to California Highway 74 (32,012 acres)

Eagle Canyon Trail

Goat Trails, except for connector to the Berns Trail

Clara Burgess Trail

Dry Wash Trail

Hahn Buena Vista Trail

Cathedral Canyon Trail, except for the two legs immediately adjacent to Cathedral City Cove

Dunn Road, except for the segment extending from Cathedral City Cove to the second BLM gate in Section 5, T5S, R5E

Art Smith Trail – *open 2 days/week (Tuesday and Sunday, January 15 – February 15 and May 1 – June 30).*

Schey Trail

(5) California Highway 74 to Martinez Canyon (49,645 acres)

Bear Creek Canyon Trail – *closed at the boundary of BLM-managed public lands and open in Section 13, T6S, R6E (immediately south of La Quinta Cove).*

Bear Creek Oasis Trail

Guadalupe Trail

Boo Hoff Trail- *open 2 days/week (Tuesday and Saturday, January 15 – February 15 and May 1 – June 30).*

(6) Martinez Canyon to Riverside/San Diego County line (35,711 acres)

no primary trails

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Trails Subject to Hot Season Closure – July 1 through September 30

Bear Creek Oasis Trail

Bear Creek Canyon Trail – closed at the boundary of BLM-managed public lands, and open in Section 13, T6S, R6E (immediately south of La Quinta Cove).

Carrizo Canyon Trail

Art Smith Trail

Guadalupe Trail

Un-named trails posted as “closed during July 1 – September 30”.

Seasonal Trail Area total: 142,705 acres (75% of designated critical habitat)

All other trails located within Seasonal Trail Areas, including those that have not been named, mapped or otherwise identified, would also be subject to closure from January 15 to June 30. (see Figure 2-12 for depiction of Seasonal Trail Areas, primary trails, essential bighorn habitat.

Modifications to Seasonal Trail Area boundaries may occur where new perimeter trails are proposed and topographic limitations and/or configuration of private lands constrain trail development outside of the Seasonal Trail Areas (see NEW TRAIL DEVELOPMENT).

Trails not subject to the voluntary trail avoidance program and available for year-round use. All trail use within bighorn sheep habitat would be subject to monitoring to assess impacts of trail use on bighorn sheep.

East of Palm Canyon

Pacific Crest National Scenic Trail.
North Lykken Trail.
Museum Trail
South Lykken Trail
Picnic Table Trail (located east of the South Lykken Trail)

South Palm Springs

Araby Trail
Shannon Trail
Berns Trail
Garstin Trail
Henderson Trail
Alexander Trail
Goat Trails-connector to the Berns Trail only
Wild Horse Trail
Fern Canyon Trail
Vandeventer Trail
Andreas Hills
Palm Canyon Trail
Indian Potrero Trail
Potrero Canyon Trail

Cathedral City / Rancho Mirage

Dunn Road from Cathedral City Cove to the second BLM gate in Section 5, T5S, R5E
Two legs of the Cathedral Canyon Trail immediately adjacent to Cathedral City Cove
Bighorn Overlook Trail
Mirage Trail (Bump and Grind) below the flat overlook located at the approximate center of Section 24, T5S, R5E

Palm Desert

Eisenhower Mountain Trail (access through *The Living Desert*)

La Quinta

Segment of the Bear Creek Canyon Trail in Section 13, T6S, R6E (*north of the boundary of BLM-managed public lands*).
La Quinta Cove to Lake Cahuilla Connector Trail (*a.k.a. the Morrow Trail. Use levels and bighorn sheep distributions will be monitored.*

Southern Santa Rosa Mountains

Cactus Spring Trail
Martinez Canyon Trail

U.S. Forest Service lands

All trails in designated critical bighorn sheep habitat

Perimeter trail corridors and other locations

All new trails upon development (see NEW TRAIL DEVELOPMENT)

Individuals would be requested to venture no more than 50 feet from center-line of trails on either side for purposes of resting, nature study, or other similar activities from **January 15 to June 30** in bighorn sheep habitat. Holders of permits issued for research and extended study (subject to NEPA and ESA review) would be exempt from this requirement.

Individuals would be required to obtain a free permit for use of the following trails from **October 1 through January 14**: , Bear Creek Canyon and Oasis Trails,, Cathedral Canyon, Skyline Trail, and North Lykken Trail. The self-issue permit and trailhead registers would be used to monitor trail use and adapt the trails management plan when necessary to ensure best management for recreation users, Peninsular Ranges bighorn sheep and other wildlife. The same permit system would be used to track cross-country recreational activities.

Use of the Art Smith Trail (including Dead Indian Canyon) and Boo Hoff Trail would require a free permit year-round. All trail use would be subject to monitoring to assess the impacts of trail use on bighorn sheep.

Outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, trails would be open year-round for non-motorized use subject to existing regulations.

IMPLEMENTATION – TRAIL USE

Implementation of Seasonal Trail Area closures would be phased in as new perimeter trails are constructed in identified corridors. Prior to completing any phase of new trail construction, the voluntary trail avoidance program as currently implemented for the adjacent Seasonal Trail Area would be continued (see *CURRENT MANAGEMENT: VOLUNTARY TRAIL AVOIDANCE PROGRAM* below). Priorities for new trail construction and the phase-in strategy for Seasonal Trail Area closures are described below.

Phase One

- Closures in Seasonal Trail Areas numbered above as 1, 2, 3, and 6 would be implemented annually from **January 15 to June 30** upon approval of the Coachella Valley Multiple Species Habitat Conservation Plan / Natural Communities Conservation Plan and prior to completion of any new perimeter trail
 - The Skyline Trail would be the only trail affected by this closure. There would be no primary trails affected in Seasonal Trail Areas 1, 2, or 6. The voluntary trail avoidance program in Seasonal Trail Areas 4 and 5 would continue as currently implemented.

Perimeter trail alignments – Phase One

- Connector trail from northern terminus of North Lykken trail to the Pacific Crest Trail at Snow Creek.
- Connector trail from northern terminus of North Lykken trail to the dike along Tramway Road and continuing up the alluvial fan bisected by Tramway Road. This trail is being developed cooperatively between the City of Palm Springs and the Agua Caliente Band of Cahuilla Indians. Alignment of this trail has been determined by the project coordinators.

Phase Two

- The voluntary trail avoidance program in Seasonal Trail Areas 4 and 5 would continue as currently implemented pending completion of proposed perimeter trails.
- Closures in Seasonal Trail Area 4 would be implemented annually from **January 15 through June 30** upon completion of the proposed perimeter trails listed below.
- Hot season closures - Bear Creek Canyon Trail, Bear Creek Oasis Trail, and various unnamed posted trails closed during **July 1 – September 30** upon completion of proposed perimeter trails listed below.

Perimeter trail alignments – Phase Two

- Santa Rosa and San Jacinto Mountains National Monument Visitor Center to the west ridge of Deep Canyon – trail would be constructed to avoid disturbance to captive population of bighorn sheep at the Bighorn Institute.
- Santa Rosa and San Jacinto Mountains National Monument Visitor Center loop trail.
- Homme-Adams Park loop trail and connector to the Mirage Trail

Phase Three

- Closure for Seasonal Trail Area 5 would be implemented annually from **January 15 to June 30** upon completion of the proposed perimeter trails listed below.

Perimeter trail alignments – Phase Three

- West side of La Quinta Cove connecting existing bike path to north end of Cove.
- Western flank of the Coral Reef Mountains from flood control access gate.
- Avenue 58 south along perimeter of the Santa Rosa Mountains to Avenue 65 (Coral Mountain Regional Park is currently under development by the Coachella Valley Recreation and Parks District).

Phase Four

Perimeter trail alignments – Phase Four

- Rimrock shopping center to and around Cathedral City Cove
 - From the northern terminus of the Goat Trails connector to Cathedral City Cove, generally flanking the flood control levee on both sides. The two existing legs of the Cathedral Canyon trail immediately adjacent to the Cove would be utilized.
- Cathedral City Cove to Rancho Mirage
 - Along bighorn sheep fence alignment on the southeast side of Cathedral City Cove, not extending uphill of the flood control channel, except where the proposed trail would occur north of the bighorn exclusion fence.
 - East side of the Santa Rosa Wilderness Area from the southern terminus of the Coral Mountain Regional Park Trail to the mouth of Martinez Canyon.

Additional Guidelines for Development of Perimeter Trails

- Seasonal Trail Area closures would be implemented as new trails are constructed.
 - Phase I and II would be concurrent.
 - Phase III and IV would occur sequentially and each would have a three-year window for construction of new perimeter trails.
 - Each phase of implementation would occur within three years
 - The Trails Management Committee would reassess development of specific perimeter trails if they have not been built at the end of three years.
 - Implementation would be subject to review by the Trails Management Committee.
 - Total phasing would not exceed nine years. All Seasonal Trail Area closures would be implemented no later than nine years after the plan is approved.
-
- A multi-jurisdiction, multi-agency Sheep Ambassador/monitoring and outreach team would continue to provide outreach and education to trail users, and to request and monitor compliance with the voluntary avoidance program during implementation. The monitoring plan would be developed more fully in the Coachella Valley Multiple Species Habitat Conservation Plan and Natural Communities Conservation Plan.
-
- Effectiveness of the trails management program would be reviewed annually by the Trails Management Committee, which would be made up of representatives for all signatories of the Coachella Valley Multiple Species Habitat Conservation Plan / Natural Communities Conservation Plan. Modifications to the program and/or implementation strategy would be undertaken upon mutual agreement of the Trails Management Committee.

Current management: Voluntary Trail Avoidance program

The Bureau of Land Management has requested that the public refrain from using the trails listed below to protect bighorn sheep during the lambing season, January 1 – June 30.

Art Smith Trail

Boo Hoff

Cathedral Canyon Trail

Bear Creek Canyon Trail

Bear Creek Oasis Trail

Guadalupe Trail

Morrow Trail

North Lykken Trail

Clara Burgess Trail

Dunn Road

II. CROSS-COUNTRY TRAVEL

- Cross-country travel would be prohibited in essential bighorn sheep habitat from **January 15 to September 30**, and allowed from **October 1 to January 14**.
- Outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, cross-country travel would be allowed year-round subject to existing regulations.
- Individuals would be required to obtain a free permit for use of the following trails from **October 1 through January 14**: Art Smith Trail (including Dead Indian Canyon), Bear Creek Canyon and Oasis Trails, Boo Hoff Trail (including the connector from Lake Cahuilla to La Quinta Cove – a.k.a. Morrow Trail), Cathedral Canyon, Skyline Trail, and North Lykken Trail from **October 1 through January 14**. The self-issue permit and trailhead registers would be used to monitor trail use and adapt the trails management plan when necessary to ensure best management for recreation users, Peninsular Ranges bighorn sheep and other wildlife. The same permit system would be used to track cross-country recreational activities.

III. CAMPING

- Camping would be prohibited in bighorn sheep habitat from **January 15 to September 30**, and allowed from **October 1 to January 14**.
- Campers would be required to obtain a free use permit at the Palm Springs BLM office, the Santa Rosa and San Jacinto Mountains National Monument Visitor Center, or other locations from **October 1 through January 14**. Information gathered through the permit system would aid in assessing numbers of campers per year in the Santa Rosa and San Jacinto Mountains.
- Camping would be prohibited within 1/4 mile of water sources to prevent disturbance to wildlife at these critical locations.
- Camping would be allowed outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains subject to existing regulations.

IV. DOGS

- Dogs would be allowed in designated areas only (see below).
- Dogs would be kept under restraint to ensure they do not roam freely. Leash restrictions would be enforced by city, state, and federal agencies.
- The following areas in bighorn sheep habitat would be approved for entry with dogs on leashes:
 - West of Cathedral City Cove
 - Homme-Adams Park and adjacent lands in Palm Desert.
 - South of La Quinta Cove, outside of designated critical habitat but within essential habitat.
- Outside bighorn sheep habitat in the Southern Santa Rosa and San Jacinto Mountains, dogs would be subject to existing regulations.

Exceptions to the prohibition of dogs

Persons requiring accompaniment by a seeing-eye dog, and those using dogs to facilitate search and rescue or law enforcement operations are exempt from the prohibition.

V. NEW TRAIL DEVELOPMENT

New trails listed below would be developed within perimeter corridors (see “Implementation” under “Trail Use”) approved in this plan. Additional new trail development would be assessed on a case-by-case basis.

Guidelines for development of new perimeter trails

- New perimeter trails would generally run parallel to and rise not more than 200 feet above the toe of slope.
- New perimeter trails would not be constructed within 1/4 mile of water.
- New perimeter trails would incorporate topographic variability where possible.
- New perimeter trails would be available for year-round use.
- The proposed new perimeter trail network is described in Section II – Implementation.
- Construction of approved new perimeter trails would be allowed only between **July 1 and January 14.**
- Additional proposals for new perimeter trail development in the Santa Rosa and San Jacinto Mountains would be considered on a case-by-case basis using the criteria laid out in this plan.
- A new trail linking Deep Canyon and the west side of La Quinta Cove, connecting the cities of Palm Desert and La Quinta. Art Smith Trail in Palm Desert would be closed seasonally upon completion of this connector trail.
- Three alignments would be considered for the connector trail between La Quinta and Palm Desert. The preferred route will be identified via the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Communities Conservation Plan.

1. North of Eisenhower Mountain – trail would be open year round.
2. Between Eisenhower Mountain and Indio Mountain – trail would be open seasonally.
3. South of Indio Mountain between Indio Mountain and Coyote Canyon – trail would be closed from **January 15 through September 30.**

VI. TRAIL REROUTING

- Trails would be rerouted to protect sensitive resource values (e.g., cultural resources, wildlife habitat, soils).
- Identification of trails to be rerouted would be based on habitat use patterns, home range and distribution of bighorn sheep. Until sufficient data are available to identify meaningful and feasible trail reroutes, proposals regarding specific reroutes would be considered on a case-by-case basis.
- Trails would be re-routed around existing wildlife water sources, where feasible, to prevent disturbance to wildlife during the hot season.
- Construction of trail re-routes would occur only between **October 1 – January 14** within bighorn sheep habitat
- Rerouting of the Guadalupe Trail to avoid desert slender salamander habitat would be proposed upon locating salamander populations and determining level of trail use.
- Outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, proposals for trail reroutes would be addressed on a case-by-case basis.

VII. TRAIL DECOMMISSION AND REMOVAL

- Redundant trails in the Murray Hill Complex would be identified and removed. Redundant trails are identified as those serving the same or similar purpose as other trails (e.g., connecting the same two points) and providing the same or similar recreation experience. Secondary or tertiary braided trails and trail shortcuts would generally be considered redundant.
- Additional redundant trails would be identified using aerial photography and other methods.
- Redundant trails would be identified for permanent closure using the following criteria:
 - Relocation would not be meaningful and feasible
 - Seasonal restrictions could not be effectively monitored and enforced
 - Recurring violations of trail closures have occurred.

Santa Rosa and San Jacinto Mountains Trails Management Plan
Chapter 2 - Alternatives
Alternative B

- Trail removal would occur only between **October 1 and January 14**.
- Consideration would be given to using redundant trails to separate potentially conflicting trail use (e.g. horseback riding and mountain biking).
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, proposals to decommission and remove trails would be addressed on a case-by-case basis.

VII. MURRAY HILL FACILITIES

- Picnic tables and equestrian hitching posts at the summit of Murray Hill would be relocated outside the Seasonal Trail Area, but **could** be sited within bighorn sheep habitat.
- A new site for the facilities would be determined through coordination with affected interest groups and jurisdictions subsequent to approval of the Coachella Valley Multiple Species Habitat Conservation Plan / Natural Communities Conservation Plan. Relocation would be subject to the NEPA process and consultation with the USFWS.
- Relocation of picnic tables and equestrian hitching posts would be undertaken only during **October 1 – January 14**.

IX. NONCOMMERCIAL, NONCOMPETITIVE ORGANIZED GROUP ACTIVITIES

- Noncommercial, noncompetitive organized groups would be prohibited in Seasonal Trail Areas from **January 15 through June 30**, and on certain trails under hot season closures **July 1 through September 30**.
- Noncommercial, noncompetitive organized groups of 10 to 24 individuals would be required to obtain a free use permit for activities in bighorn sheep habitat throughout the entire year. Permits would be available at the Palm Springs BLM office, the Santa Rosa and San Jacinto Mountains National Monument Visitor Center, and other locations.
- All non-commercial, non-competitive groups of more than 25 individuals using BLM-managed lands would be required to obtain a Special Recreation Permit *except for when exemptions apply (see glossary)*.
- When entering the Santa Rosa Wilderness, noncommercial, noncompetitive organized groups of 16 to 24 individuals would be required to break into groups with no more than 15 individuals in any one group, and attempt to maintain at least 1/2-mile separation between groups.
- *Special Recreation Permits* would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by the BLM and in consultation with USFWS would be mandatory.

- All permits would be issued only for use of trails and areas where and when the Seasonal Trail Area closure, the seasonal cross-country prohibition, or the voluntary trail avoidance program are not in effect.
- Noncommercial, noncompetitive organized groups using State lands would be subject to the California Code of Regulations.
- Outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, noncommercial, noncompetitive organized group activities could be allowed, subject to permission of private landowners, and approval through state or federal regulatory permitting processes, where applicable.

X. NON-MOTORIZED COMMERCIAL RECREATION ACTIVITIES

- Non-motorized commercial recreation activities would be prohibited in Seasonal Trail Areas from **January 15 to June 30** and on certain trails under hot season closures from **July 1 through September 30**.
- Non-motorized commercial recreation activities would be permitted in the remainder of bighorn sheep habitat where and when the voluntary trail avoidance program does not apply, subject to permission of private landowners and approval through regulatory permitting processes.
- A *Special Recreation Permit* would be required, except in circumstances when exemptions apply (see glossary), for non-motorized commercial recreation activities on BLM-managed lands, including vending associated with recreational use.
- *Special Recreation Permits* for use of BLM-managed lands would be issued through existing BLM regulatory processes (including compliance with NEPA and ESA).

XI. MOTORIZED COMMERCIAL RECREATION ACTIVITIES

- Motorized commercial recreation activities would be prohibited year-round in bighorn sheep habitat, except on a portion of Dunn Road, subject to permission from private landowners.

Dunn Road

- Motorized commercial recreation activities between Pinyon Flats and the common boundary of Sections 32 and 3, T5S, R5E, would be considered on a case-by-case basis and allowed only from **October 1 to January 14**.
- Motorized commercial recreation activities would be subject to approval through regulatory permitting processes (including compliance with NEPA and ESA), including issuance of a *special recreation permit* by BLM for use of BLM-managed portions of Dunn Road.
- Motorized commercial recreation activities on the portion of Dunn Road from Cathedral City Cove to the common boundary of Sections 32 and 33 would be prohibited year-round.

Martinez Canyon Cherry Stem Road

- Motorized commercial recreation activities would be prohibited year round.

XII. COMPETITIVE RECREATION EVENTS

- Competitive recreation events would be prohibited year-round in essential bighorn sheep habitat on BLM-managed public lands in the Santa Rosa and San Jacinto Mountains.
- A *special recreation permit* would be required for competitive recreation use of BLM-managed public lands outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains.

XIII. PUBLIC OUTREACH AND ENVIRONMENTAL EDUCATION

- An information and education program addressing all management prescriptions herein described, upon approval, would be implemented.
- Guided hikes during the fall season would be undertaken by BLM in partnership with local jurisdictions and user groups to provide outreach and education.
- The lower portion of Dead Indian Canyon contains a prehistoric archaeological site that would lend itself well to interpretation and public education. The site lies approximately 0.75 miles west of the levee and consists of several grinding "slicks" and a bedrock mortar. A dense stand of mesquite lies directly across the wash from the site. This, and the diversity of other plants in the area, provides the opportunity for a discussion of Cahuilla subsistence practices and use of native plants.
- Outreach and education would not be limited to bighorn sheep ecology but would include desert ecology in general.
- Viewing areas would be established so that the public can view bighorn sheep and other wildlife from a distance. These areas would be located to prevent disturbance to the animals.

2.2.3 Alternative C

Use of private lands for various purposes (e.g., hiking, mountain biking, horseback riding, camping, new trail development, trail rerouting, trail removal, commercial activities, and competitive events) is at the discretion of the landowner. Where needed, acquisition of land from willing sellers and/or easements from willing grantors will be pursued, dependent on available funding. Activities on State lands would be subject to the California Code of Regulations. Activities on tribal lands are subject to approval of the Agua Caliente Band of Cahuilla Indians. Trails on tribal lands are not subject to the management prescriptions herein identified, but are considered relative to trail connectivity and network viability. Where Federal permits (including *Special Recreation Permits*) are required, they will be issued through BLM's regulatory process and will comply with NEPA and the Endangered Species Act.

I. TRAIL USE

- Non-motorized activities would be prohibited from **January 1 to September 30** on the trails listed below:

Trails subject to closure from January 1 to September 30

East of Palm Canyon

North Lykken Trail (closure applies north of Desert Riders Park at the western terminus of the Museum Trail only)

Skyline Trail (eastern trailhead is located at Desert Riders Park at the western terminus of the Museum Trail)

South Palm Springs

Araby Trail

Shannon Trail

Berns Trail

Garstin Trail

Clara Burgess Trail

Wild Horse Trail

Goat Trails

Eagle Canyon Trail

Dry Wash Trail

Fern Canyon Trail

Vandevert Trail

Hahn Buena Vista Trail

Cathedral City / Rancho Mirage

Cathedral Canyon Trail (closure does not apply to the trail's two legs immediately adjacent to Cathedral City Cove)

Dunn Road

Palm Desert

Art Smith Trail

Carrizo Canyon Trail

Schey Trail

La Quinta

Bear Creek Canyon Trail

Bear Creek Oasis Trail

Guadalupe Trail

Boo Hoff Trail

La Quinta Cove to Lake Cahuilla Trail (includes the Morrow Trail and a portion of the Boo Hoff Trail)

- Non-motorized activities would be prohibited **January 1 to June 30** on other trails in designated critical bighorn sheep habitat. These trails are identified below.

Trails subject to closure from January 1 to June 30 only

East of Palm Canyon

South Lykken Trail
Picnic Table Trail (located east of the South Lykken Trail; closure applies west [uphill] of picnic tables only)

Cathedral City / Rancho Mirage

Mirage Trail (Bump and Grind) uphill of flat overlook located at the approximate center of Section 24, T5S, R5E

Trails available for year-round use in designated critical bighorn sheep habitat

East of Palm Canyon

Pacific Crest National Scenic Trail
North Lykken Trail (applies south of Desert Riders Park only)
Museum Trail (Palm Springs Desert Museum to Desert Riders Park)
Picnic Table Trail (located east of the South Lykken Trail; applies east [downhill] of picnic tables only)

South Palm Springs

Henderson Trail
Alexander Trail
Palm Canyon Trail
Indian Potrero Trail
Potrero Canyon Trail

Cathedral City / Rancho Mirage

Bighorn Overlook Trail
Mirage Trail (Bump and Grind) downhill of flat overlook located at the approximate center of Section 24, T5S, R5E

Palm Desert

Eisenhower Mountain Trail (access through *The Living Desert*)

Southern Santa Rosa Mountains

Cactus Spring Trail
Martinez Canyon Trail

U.S. Forest Service lands

All trails in designated critical bighorn sheep habitat

Perimeter trail corridors and other locations

All new trails upon development (see NEW TRAIL DEVELOPMENT)

IMPLEMENTATION –TRAIL USE

- All trail closures would be effective upon approval of the Coachella Valley Multiple Species Habitat Conservation Plan / Natural Communities Conservation Plan.

II. CROSS-COUNTRY TRAVEL

- Cross-country travel would be prohibited year-round in essential bighorn sheep habitat.
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, cross-country travel would be allowed year-round subject to existing regulations.

III. CAMPING

- Camping would be prohibited year-round in essential bighorn sheep habitat.
- Outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, camping is allowed subject to existing regulations.

IV. DOGS

- Dogs would be prohibited in essential bighorn habitat except in designated areas.
- Dogs would be allowed outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains subject to existing regulations.
- The following areas in bighorn sheep habitat would be approved for entry with dogs on leashes:
 - West of Cathedral City Cove
 - Homme-Adams Park and adjacent lands in Palm Desert An area south of La Quinta Cove *outside* designated critical bighorn sheep habitat would be open to entry with dogs.

V. NEW TRAIL DEVELOPMENT

- New trails along the mountain perimeter would be developed in identified corridors where feasible.

Guidelines for development of new perimeter trails

- These trails would generally run parallel to an dries not more than 200 feet above the toe of slope.
- New perimeter trails would not be constructed within ¼ mile of water sources used by bighorn sheep.
- New perimeter trails would incorporate topographic variability where possible.
- Construction of approved perimeter trails would be allowed only from **October 1 to December 31.**

Perimeter Trails East of Palm Canyon

- Northern terminus of the North Lykken Trail connecting to the Pacific Crest National Scenic Trail at Snow Creek.
- Northern terminus of the North Lykken Trail along the western flank of the flood control levee at Tachevah Canyon to Desert Riders Park.

Perimeter Trails South Palm Springs

- No new perimeter trail construction is proposed.

Perimeter trail alignments in Cathedral City / Rancho Mirage

- The Rimrock shopping center to Cathedral City Cove: from northern terminus, around the Cathedral City Cove, then around the Cove generally flanking the

flood control levees on both sides. The two legs of the Cathedral Canyon Trail immediately adjacent to Cathedral City Cove would be utilized.

- On the southeast side of Cathedral City Cove, the new trail would not extend uphill of the flood control channel except where the trail occurs north of the new bighorn sheep fence under construction in association with the Mirada project.
- No new perimeter trail construction is proposed from the Rancho Mirage City Hall area to Magnesia Spring Canyon.

Perimeter trail alignments in Palm Desert

- Santa Rosa Mountains National Monument Visitor Center to the west ridge of Deep Canyon.
- Santa Rosa and San Jacinto Mountains National Monument Visitor Center loop trail.
- Homme-Adams Park loop trail and connector to the Mirage Trail.

Perimeter trail alignments in La Quinta

- A new perimeter trail to the west of La Quinta Cove linking with existing trails immediately south of the Cove is proposed.
- A new perimeter trail southeast of La Quinta Cove on the western flank of the Coral Reef Mountains is proposed.

Perimeter trail alignments in the Southern Santa Rosa Mountains

- A new perimeter trail linking the existing Boo Hoff Trail at the eastern boundary of the Santa Rosa Wilderness with the Martinez Canyon Trail is proposed.
- Proposals for new trail development outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis.

VI. TRAIL REROUTING

- Trails would be rerouted to protect sensitive wildlife habitat or other resource values (e.g., cultural resources, soils).
- Trail re-routing in essential bighorn sheep habitat may only occur October 1 to December 31.
- Identification of trails to be rerouted for protection of wildlife habitat would be based on the best publicly available data.
- A reroute of a portion of the Guadalupe Trail to avoid habitat for the desert slender salamander would be considered upon locating the salamander's habitat
- Trail reroutes would be addressed on a case-by-case basis outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains.

VII. TRAIL DECOMMISSION AND REMOVAL

- Redundant trails in the Murray Hill complex would be identified and removed.
- Trail removal in essential bighorn sheep habitat may only occur October 1 to December 31.

- Additional redundant trails would be identified using aerial photography and other methods.
- Trails would be identified for permanent closure using the following criteria:
 - Where relocation is not meaningful and feasible (see glossary)
 - Seasonal restrictions cannot be effectively monitored and enforced
 - Decisions regarding permanent closure and removal of trails will be based, in part, on reports citing recurring violations of trail closures
 - Where two or more trails have the same or similar purpose (e.g. connects the same two points, or provides the same recreation experience). Secondary and tertiary braided trails and trail shortcuts would generally be considered redundant.
- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, proposals to decommission and remove trails would be addressed on a case-by-case basis.

VII. MURRAY HILL FACILITIES

- Picnic tables and equestrian hitching posts at the summit of Murray Hill shall be removed and not relocated within designated critical bighorn sheep habitat.

IX. NONCOMMERCIAL, NONCOMPETITIVE ORGANIZED GROUP ACTIVITIES

- Noncommercial, noncompetitive organized groups are prohibited on certain trails in designated critical bighorn sheep habitat when such trails are closed to non-motorized activities (see TRAIL USE).
- Noncommercial, noncompetitive organized groups of 10- 24 would be required to obtain a free permit for activities on BLM-managed lands in essential bighorn sheep habitat **January 1 – December 31**.
- Groups of 25 or more using BLM-managed lands must obtain a *special recreation permit* prior to use except where exemptions apply.
- Noncommercial, noncompetitive organized groups of 16 to 24 individuals entering the Santa Rosa Wilderness, would be required to break into groups with no more than 15 individuals in any one group, and attempt to maintain at least two-mile separation between groups.
- Permits may be issued (1) for use of trails not subject to seasonal closure, and (2) for use of trails that are subject to seasonal closure, but only when the closure is not in effect.
- Non-commercial, non-competitive organized group activities may be allowed outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains.

X. NON-MOTORIZED COMMERCIAL RECREATION ACTIVITIES

- Non-motorized commercial recreation activities would be prohibited on certain trails in essential bighorn sheep habitat when such trails are closed to non-motorized activities (see TRAIL USE).

- Non-motorized commercial recreation activities may be permitted on the trails identified above (subject to seasonal closure) from **October 1 to December 31**, and year-round on all other trails in designated critical bighorn sheep habitat,
- A *special recreation permit* would be required for non-motorized commercial recreation activities on BLM-managed lands in essential bighorn sheep habitat, except where exemptions apply.
- A *special recreation permit* may be required for non-motorized, commercial recreation activities on BLM-managed land outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, except where exemptions apply.

XI. MOTORIZED COMMERCIAL RECREATION ACTIVITIES

- Motorized commercial recreation activities would be prohibited year-round on BLM-managed public land in essential bighorn sheep habitat.
- A *special recreation permit* for motorized commercial recreation activities on BLM-managed land outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be, except where exemptions apply.

XII. COMPETITIVE RECREATION EVENTS

- Competitive recreation events would be prohibited year-round on BLM-managed land in essential bighorn sheep habitat.
- A *special recreation permit* would be required for competitive recreation use on BLM-managed land outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, except where exemptions apply.

XIV. MOTORIZED-VEHICLE USE OF TRAILS

- Motorized vehicles are prohibited on all trails in designated critical bighorn sheep habitat, except those which can accommodate full-size four-wheel vehicles. All-terrain vehicles are not considered as full-size four-wheel vehicles.
- BLM-managed portions of trails that can accommodate full-size four-wheel vehicles are subject to the route designation process (see California Desert Conservation Area Plan amendment, motorized-vehicle access element).

XII. PUBLIC OUTREACH

- An information and education program addressing all management prescriptions herein described, upon approval, would be implemented.
- Guided hikes during the fall season would be undertaken by BLM in partnership with local jurisdictions and user groups to provide outreach and education.
- Outreach and education would not be limited to bighorn sheep ecology but would include desert ecology in general.
- Viewing areas would be established so that the public can view bighorn sheep and other wildlife from a distance designed to prevent disturbance to the animals.

2.2.4 No Action Alternative (D)

Use of private lands for various purposes (e.g., hiking, mountain biking, horseback riding, camping, new trail development, trail rerouting, trail removal, commercial activities, and competitive events) is at the discretion of the landowner. Activities on tribal lands are subject to approval of the Agua Caliente Band of Cahuilla Indians. Trails on tribal lands are not subject to the management prescriptions herein identified.

[Note: Prior to development of alternatives for the Trails Plan and selection of a preferred alternative, the Bureau of Land Management implemented a voluntary trails avoidance program and a prohibition of dogs on certain BLM-managed lands, actions similar to those proposed under Trails Plan Alternative A. These actions are temporary pending long-term decisions made through the Coachella Valley Multiple Species Habitat Conservation Plan / Natural Communities Conservation Plan. For purposes of analysis in the Environmental Impact Statement / Environmental Impact Report, the No Action Alternative (Trails Plan Alternative D) does not include the voluntary trails avoidance program or dog prohibition as currently implemented.]

I. TRAIL USE

- All trails would be open year-round for non-motorized activities inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, subject to existing regulations.

II. CROSS-COUNTRY TRAVEL

- Cross-country travel would be allowed year-round inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, subject to existing regulations.

III. CAMPING

- Camping would be allowed year-round inside and outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, subject to existing regulations.

IV. DOGS

- Dogs would be allowed inside and outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, subject to existing regulations.

V. NEW TRAIL DEVELOPMENT

- Proposals for new trail development inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis.

VI. TRAIL REROUTING

- Proposals for trail reroutes inside and outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be considered on a case-by-case basis.

II. TRAIL DECOMMISSION AND REMOVAL

- Proposals to decommission and remove trails inside and outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis.

VIII. MURRAY HILL FACILITIES

- Picnic tables and equestrian hitching posts at the summit of Murray Hill would remain in place.

IX. NONCOMMERCIAL, NONCOMPETITIVE ORGANIZED GROUP ACTIVITIES

- Noncommercial, noncompetitive organized groups may be allowed inside and outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains.
- *Special recreation permits* may be required for use of BLM-managed lands by noncommercial, noncompetitive organized groups.

X. NON-MOTORIZED COMMERCIAL RECREATION ACTIVITIES

- Non-motorized commercial recreation activities may be permitted inside and outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains.
- A *special recreation permit* would be required for non-motorized commercial recreation activities on BLM-managed lands, except where exemptions apply.

XI. MOTORIZED COMMERCIAL RECREATION ACTIVITIES

- Motorized commercial recreation activities may be permitted inside and outside designated critical bighorn sheep habitat.
- A *special recreation permit* would be required for motorized commercial recreation activities on BLM-managed lands.

XII. COMPETITIVE RECREATION EVENTS

- Competitive recreation events may be permitted inside and outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains.
- A *special recreation permit* is required for all competitive recreation use of BLM-managed lands.

XIII. MOTORIZED-VEHICLE USE OF TRAILS

- Existing routes are subject to the route designation process (see California Desert Conservation Plan amendment, motorized-vehicle access).
- Approval for use of non-road trails by motorized vehicles for trail maintenance and construction projects inside and outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis.

XIV. PUBLIC OUTREACH

- Existing information and education programs pertaining to the use of trails and areas would be continued.

R3E

R4E

T1S

T1S

T2S

T2S

T3S

T3S

T4S

T4S

T6S

T5S

R3E

R4E

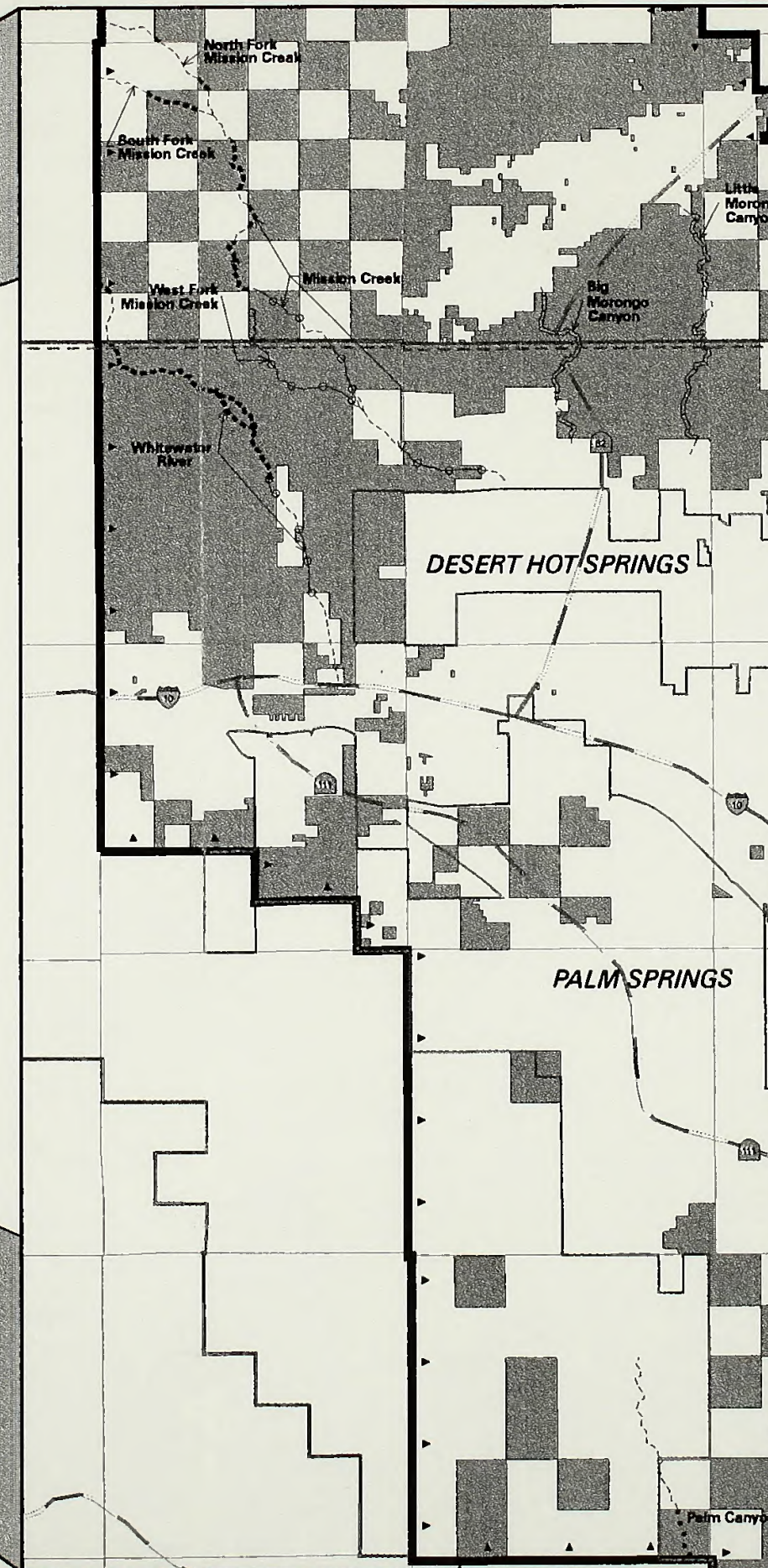
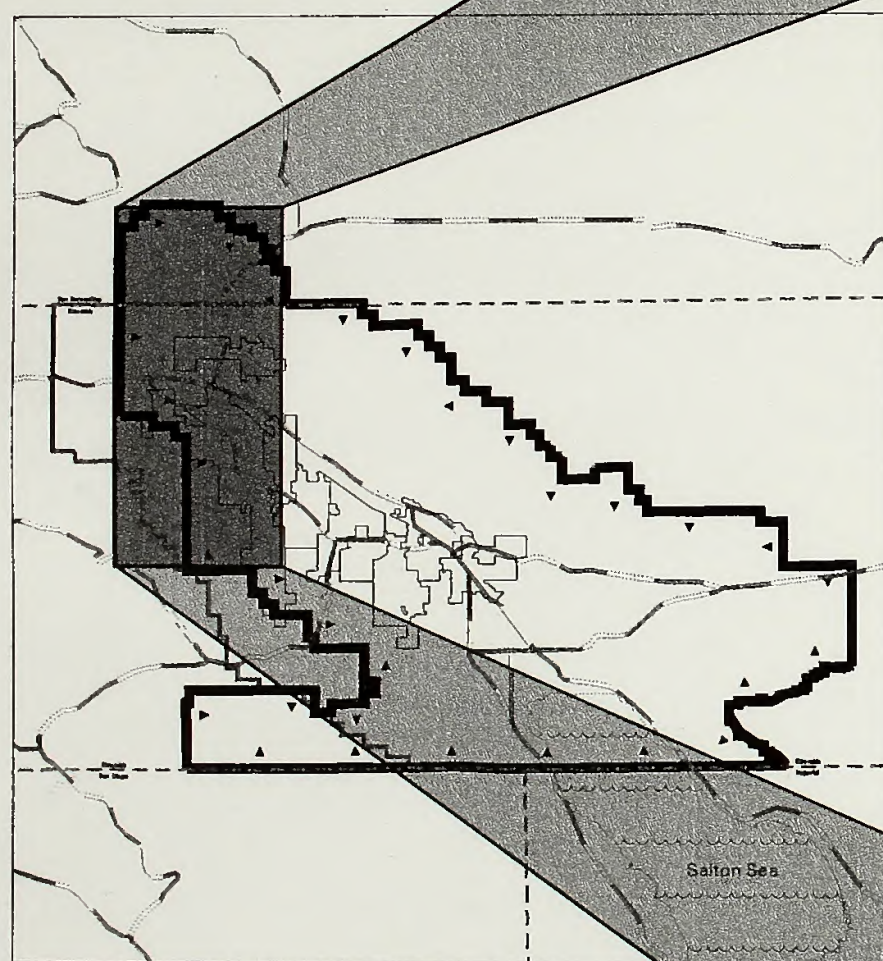


Figure 2-1
Wild and Scenic Rivers
Alternatives (A,B,C)

Legend

- Eligible WSR Classified Wild (BLM Lands)
- Eligible WSR Classified Scenic (BLM Lands)
- Eligible WSR Classified Recreational (BLM Lands)
- Considered; Not Eligible (BLM Lands)
- Not Considered (Non-BLM Lands)
- BLM Lands
- ▲ California Desert Conservation Area Plan Amendment for the Coachella Valley
- Coachella Valley MSHCP Boundary
- City Boundaries
- County Boundaries
- Township & Range
- Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers

Data Current as of 5/7/2002



Scale
1:204,000



Date: May 29, 2002

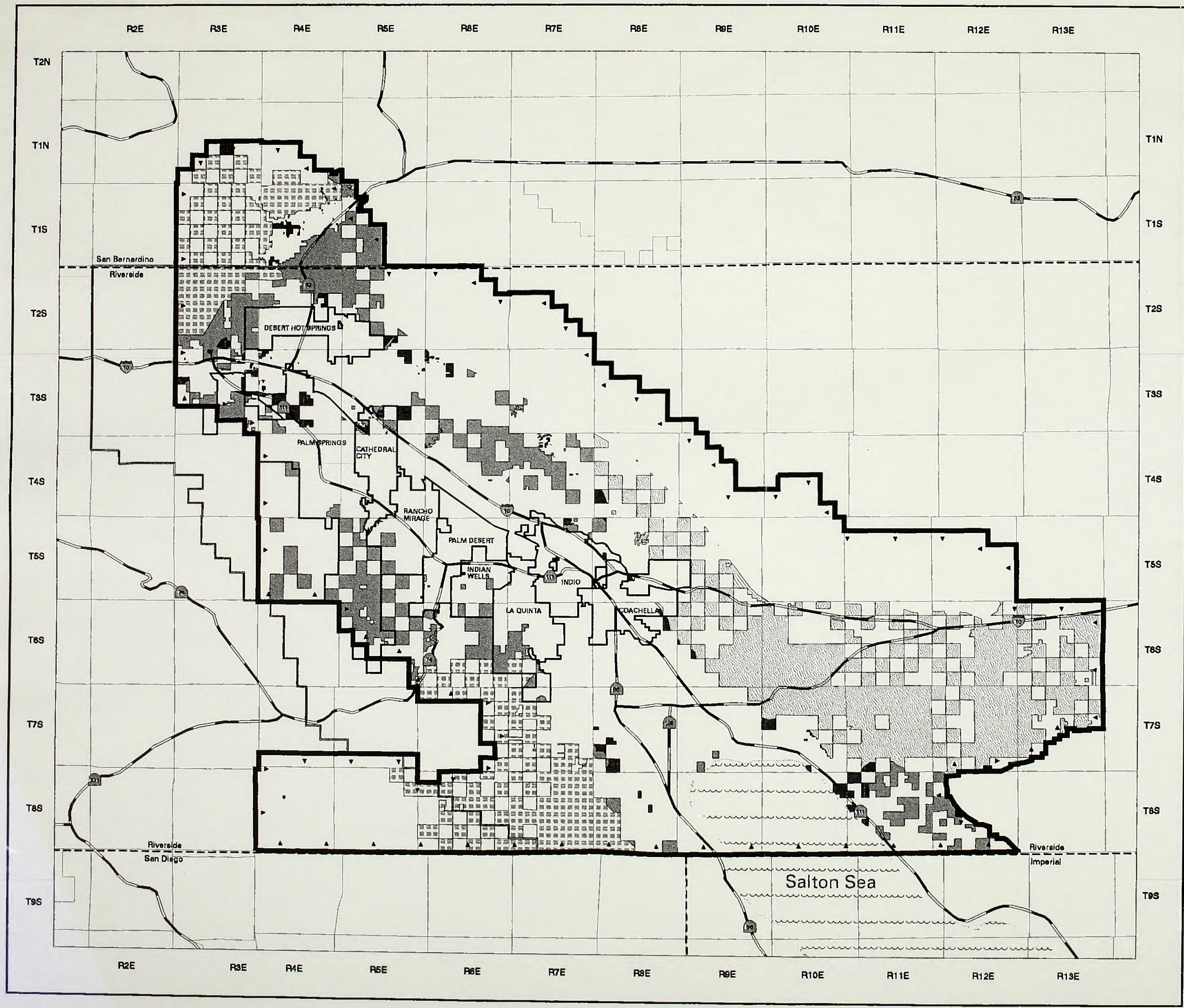


Figure 2-2

Visual Resource Management Preferred Alternative (A,B,C)

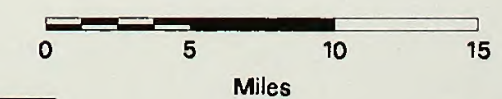
Legend

- VRM Class 1
- VRM Class 2
- VRM Class 4
- VRM Class Not Assigned (NECO Plan Overlap Area)
- California Desert Conservation Area Plan Amendment for the Coachella Valley
- Coachella Valley MSHCP Boundary
- City Boundaries
- County Boundaries
- Township & Range
- Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers
Data Current as of 5/7/2002



Scale
1:425,000



Date: May 29, 2002

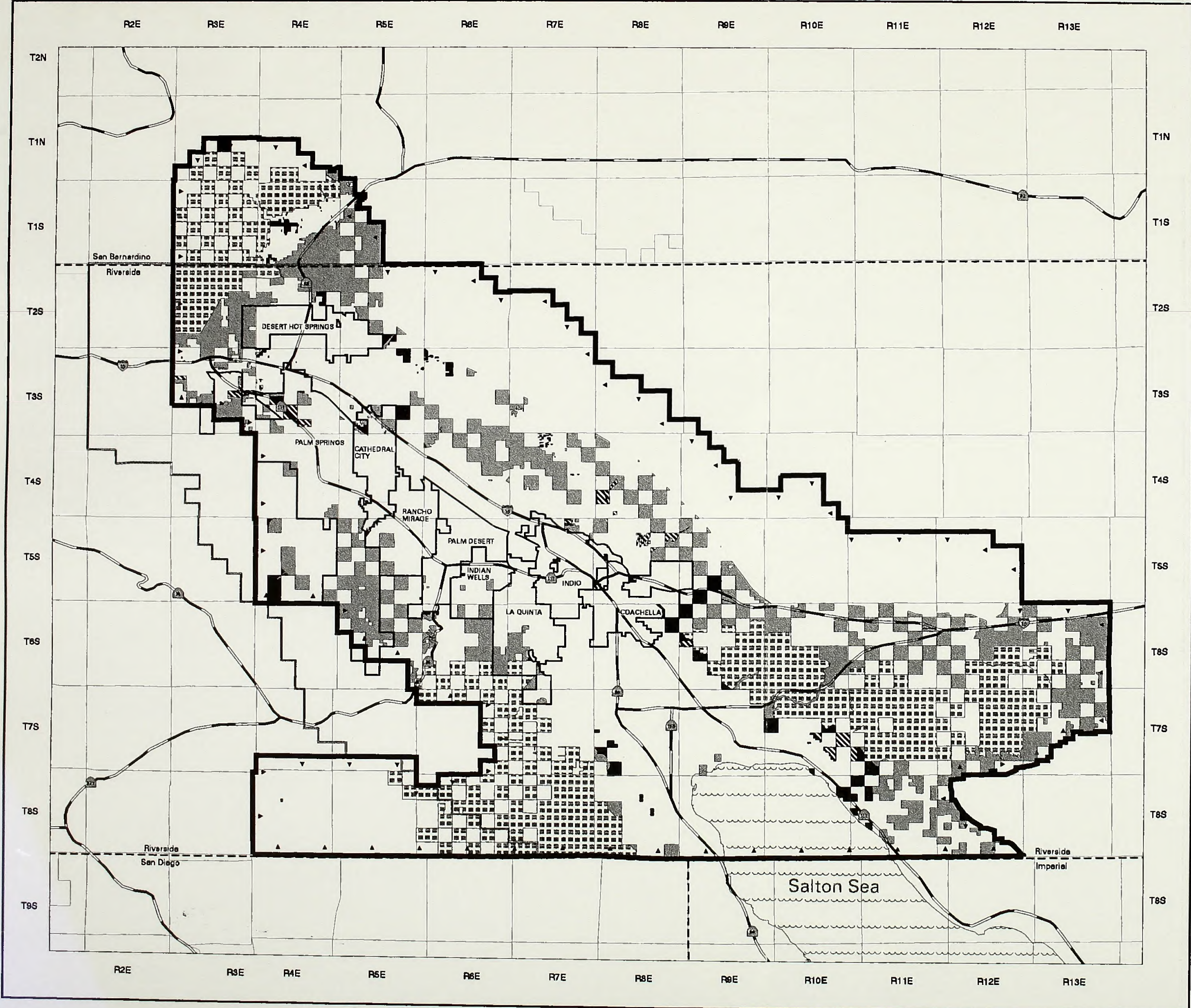







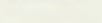
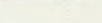
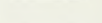
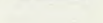


Figure 2-3a

Multiple Use Classification Preferred Alternative (B)

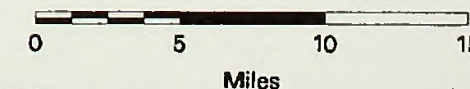
Legend

-  Controlled Use
-  Limited Use
-  Moderate Use
-  Intensive Use
-  Private, State, and Other Federally Managed Lands
-  California Desert Conservation Area Plan Amendment for the Coachella Valley
-  Coachella Valley MSHCP Boundary
-  City Boundaries
-  County Boundaries
-  Township & Range
-  Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers
Data Current as of 5/7/2002



Scale
1:425,000



Date: May 29, 2002

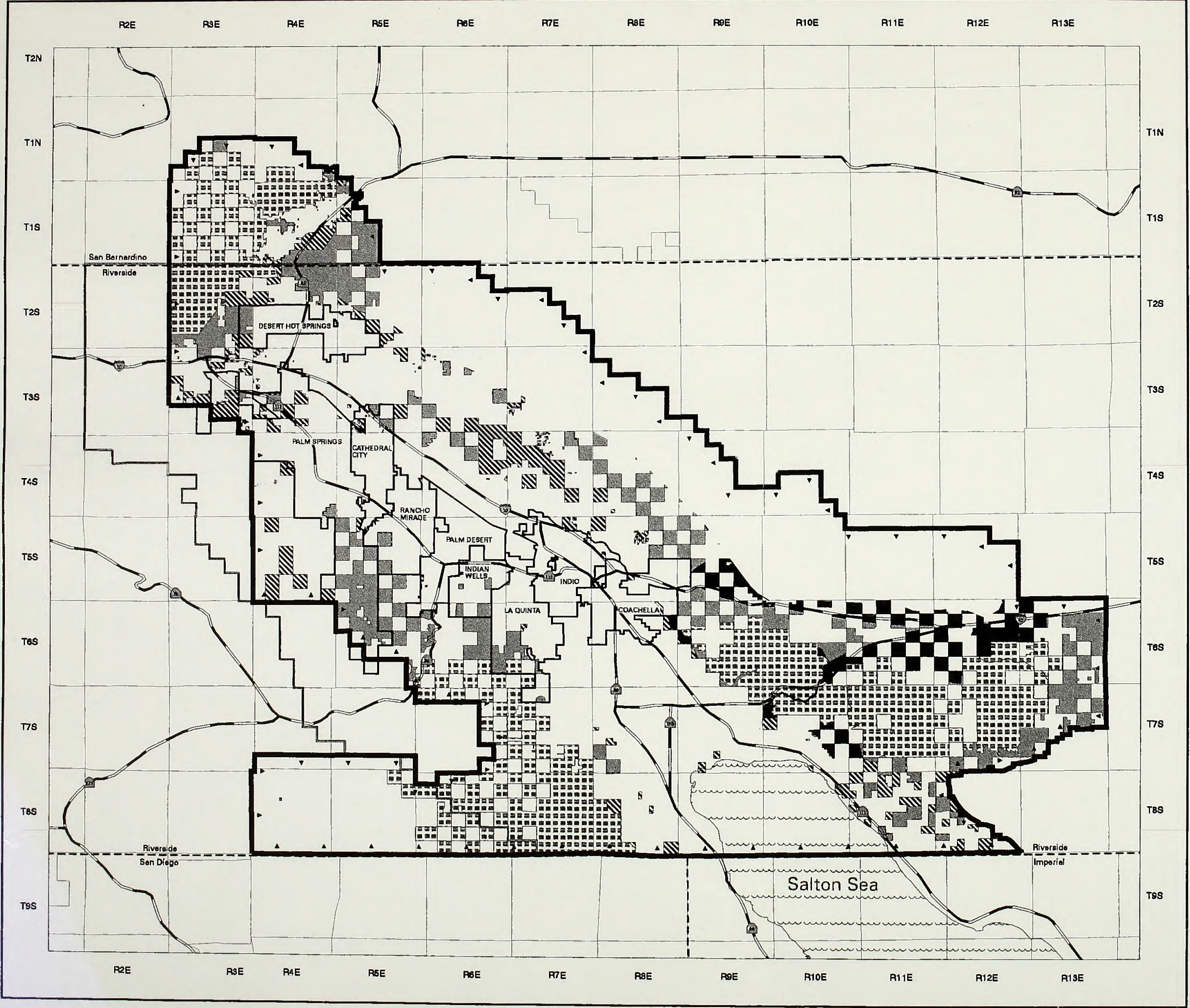


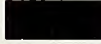

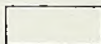


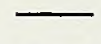


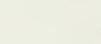


Figure 2-3b

Multiple Use Classification No Action Alternative (D)

Legend

-  Controlled Use
-  Limited Use
-  Moderate Use
-  Unclassified (Public Lands Not Within Specific Multiple Use Classes)
-  Private, State, and Other Federally Managed Lands
-  California Desert Conservation Area Plan Amendment for the Coachella Valley
-  Coachella Valley MSHCP Boundary
-  City Boundaries
-  County Boundaries
-  Township & Range
-  Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers
Data Current as of 5/7/2002



Scale
1:425,000



Date: May 29, 2002



Figure 2-4
General Habitat Types

Legend

- Sand Dunes and Sand Fields
- Desert Scrub Communities
- Chaparral Communities
- Desert Alkali Scrub Communities
- Marsh Communities
- Dry Wash Woodland and Mesquite Communities
- Riparian Communities
- Woodland and Forest Communities
- Developed Areas inside Plan Boundary
- California Desert Conservation Area Plan Amendment for the Coachella Valley
- Coachella Valley MSHCP Boundary
- City Boundaries
- County Boundaries
- Township & Range
- Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers

Data Current as of 5/7/2002



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1:425,000

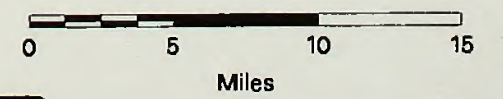



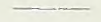



Figure 2-5

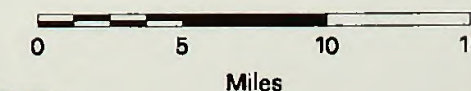
Fire Management Categories

Legend

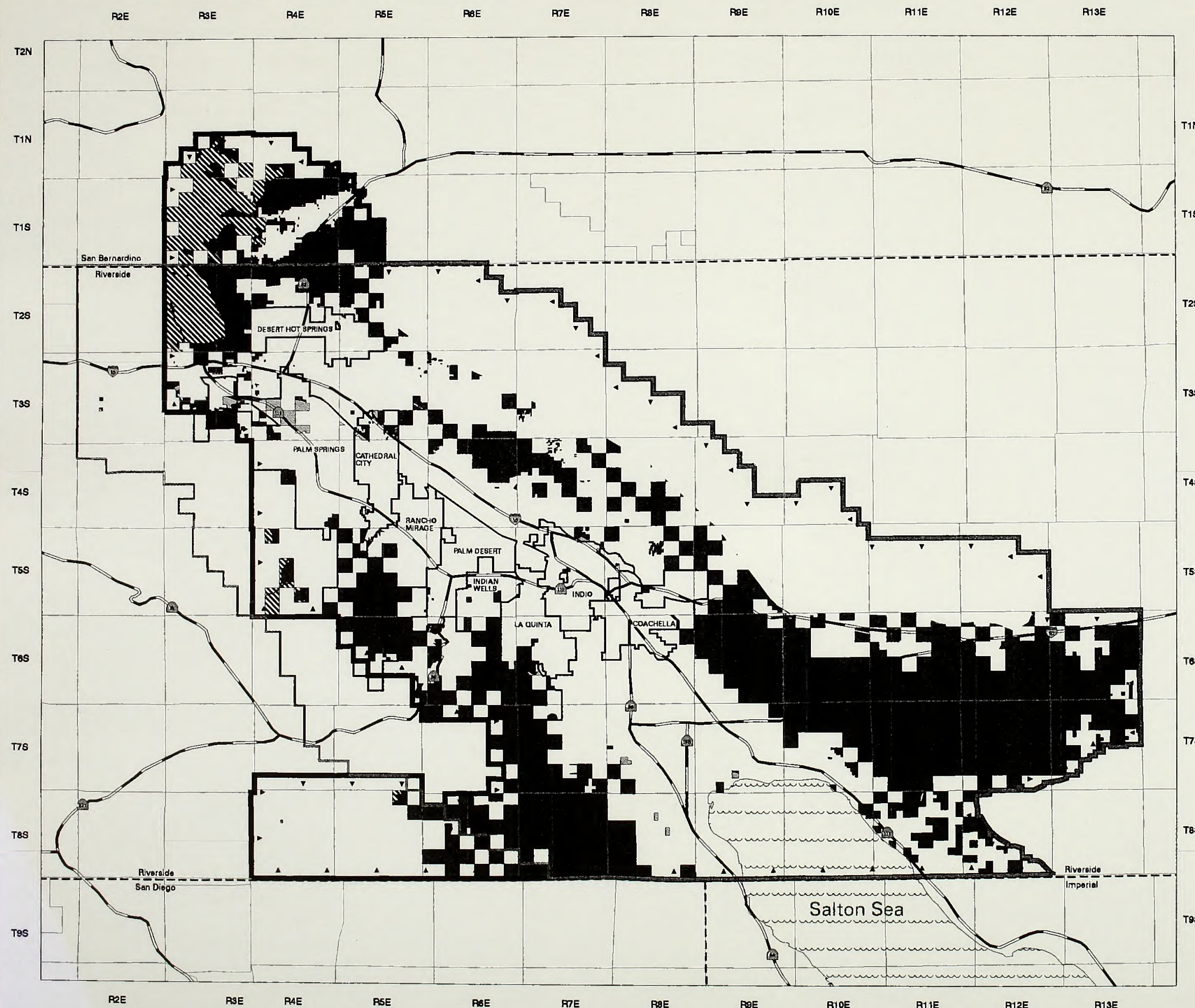
-  Fire Management Category A
-  Fire Management Category B
-  Fire Management Category C
-  California Desert Conservation Area Plan Amendment for the Coachella Valley
-  Coachella Valley MSHCP Boundary
-  City Boundaries
-  County Boundaries
-  Township & Range
-  Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers

Data Current as of 5/7/2002



Date: May 29, 2002



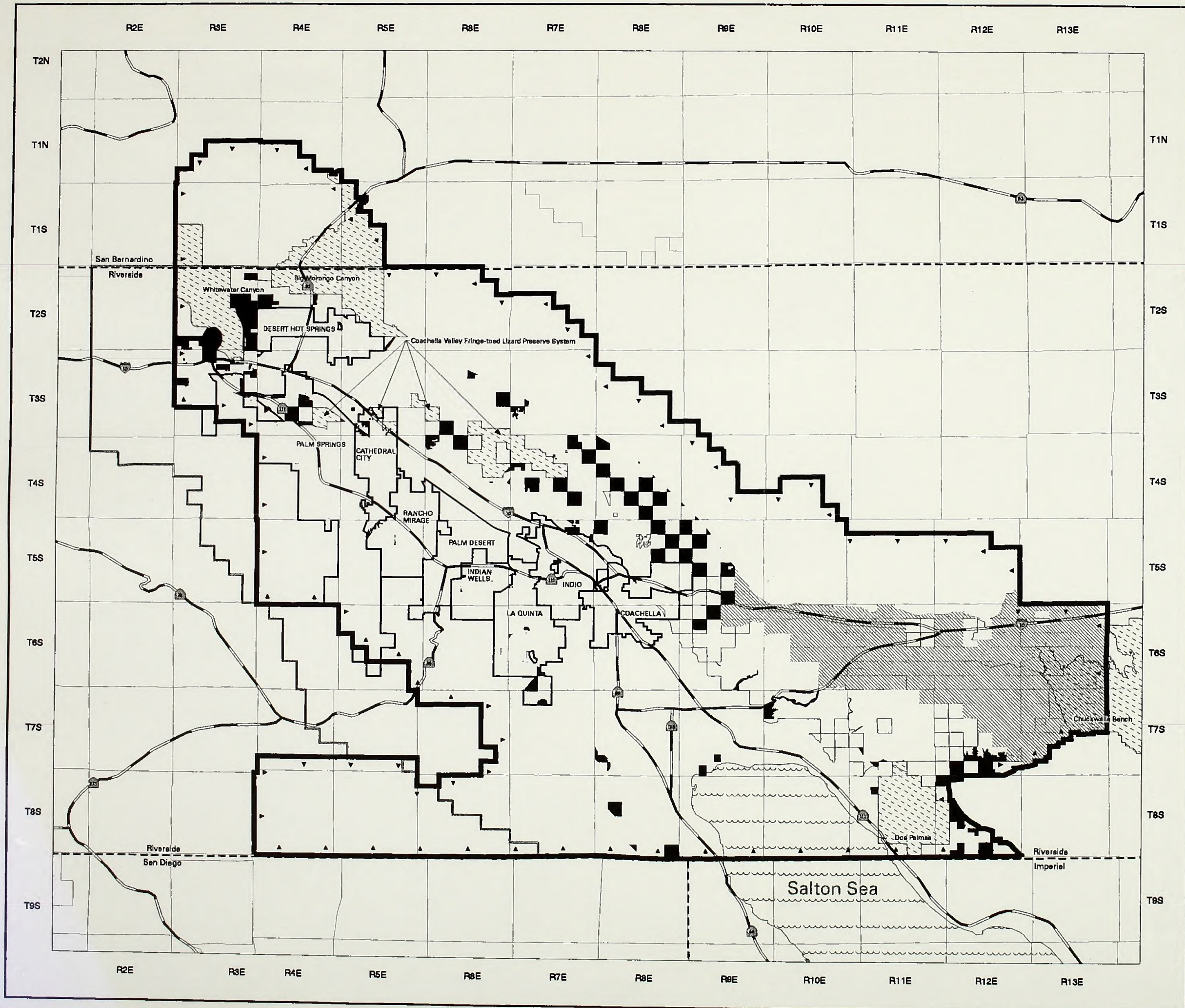


Figure 2-6a

Special Area Designations Preferred Alternative (A)

Legend

-
- Potential Coachella Valley Wildlife Habitat Management Area**
- Proposed NECO Desert Wildlife Management Area**
- Existing Areas of Critical Environmental Concern**
- California Desert Conservation Area Plan Amendment for the Coachella Valley**
- Coachella Valley MSHCP Boundary**
- City Boundaries**
- County Boundaries**
- Township & Range**
- Major Highways**

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers

Date Current as of 5/7/2002



Scale
1:425,000



Date: May 25, 2002

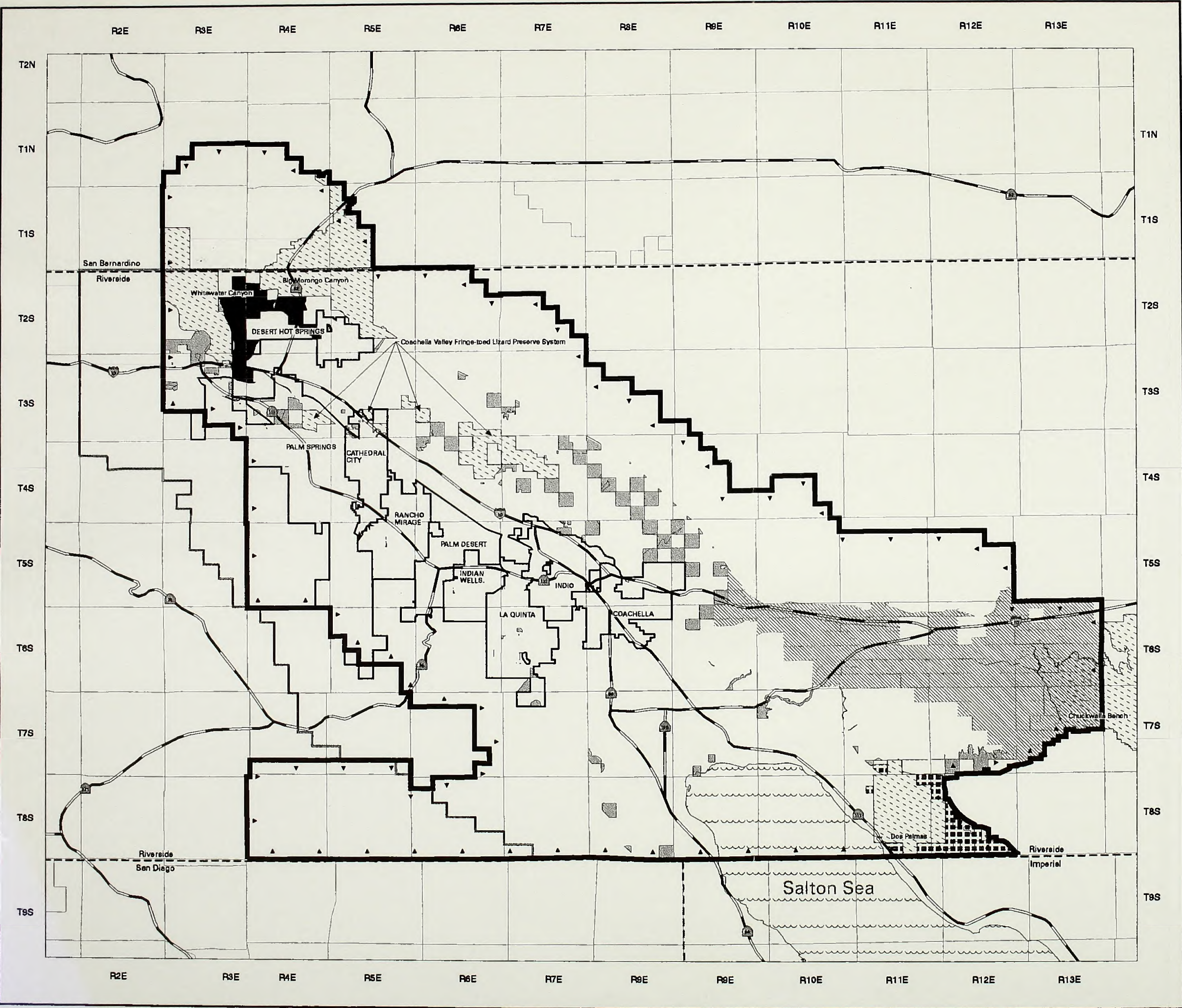


Figure 2-6b
Special Area Designations
Alternative (B)

Legend

-  Potential Expanded Dos Palmas Area of Critical Environmental Concern
-  Potential Upper Mission Creek Area of Critical Environmental Concern
-  Potential Coachella Valley Wildlife Habitat Management Area
-  Proposed NECO Desert Wildlife Management Area
-  Existing Areas of Critical Environmental Concern
-  California Desert Conservation Area Plan Amendment for the Coachella Valley
-  Coachella Valley MSHCP Boundary
-  City Boundaries
-  County Boundaries
-  Township & Range
-  Major Highways

Data Sources: US Geological Service
 Bureau of Land Management
 Riverside County
 Coachella Valley Association of Governments
 Southern California Association of Governments
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 Data Current as of 5/7/2002



Scale
 1:425,000



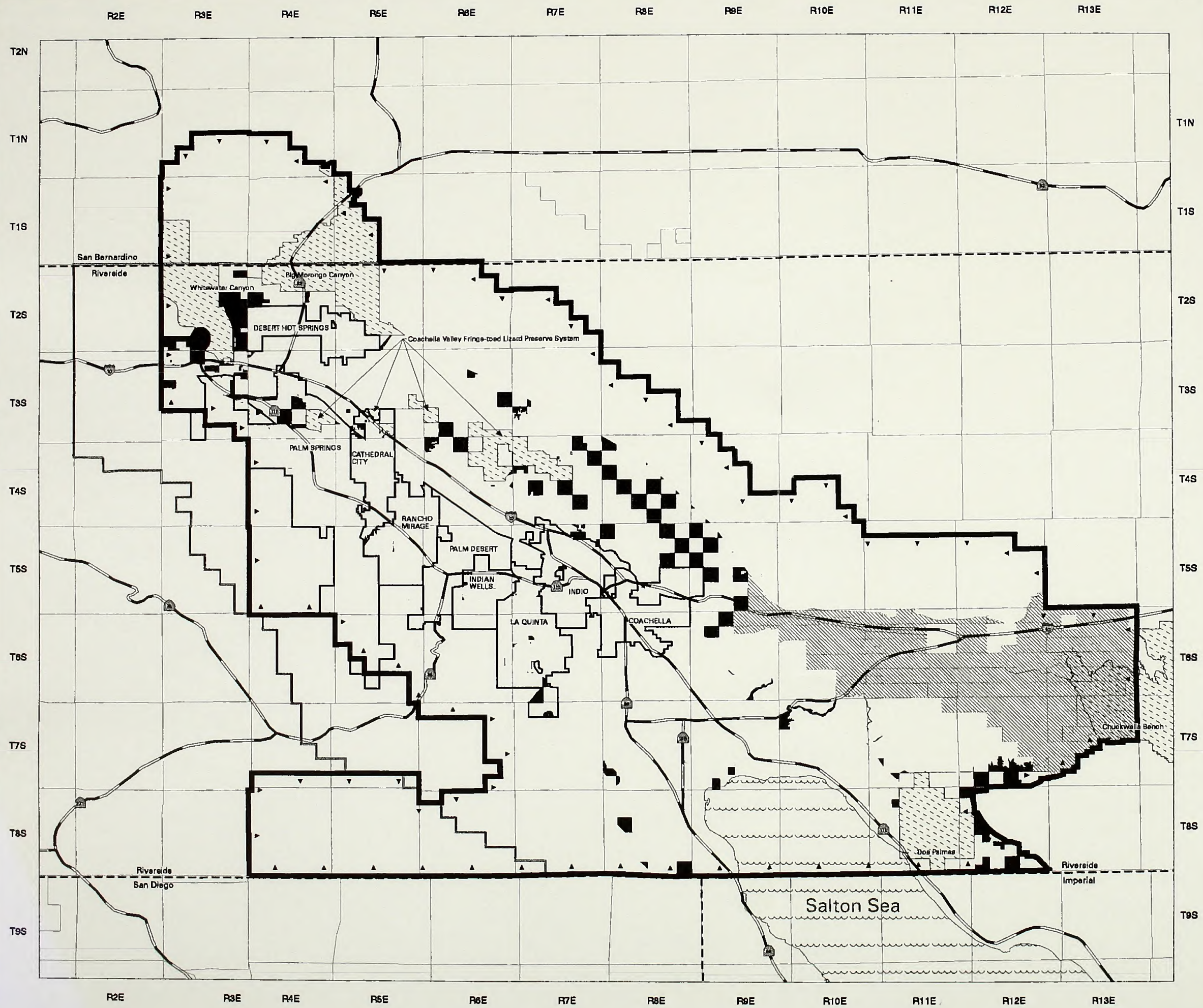
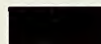








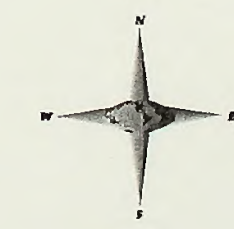


Figure 2-6c
Special Area Designations
Alternative (C)

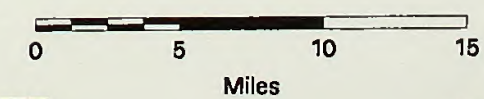
Legend

-  Potential Coachella Valley Area of Critical Environmental Concern
-  Proposed NECO Desert Wildlife Management Area
-  Existing Areas of Critical Environmental Concern
-  California Desert Conservation Area Plan Amendment for the Coachella Valley
-  Coachella Valley MSHCP Boundary
-  City Boundaries
-  County Boundaries
-  Township & Range
-  Major Highways

Data Sources: US Geological Service
 Bureau of Land Management
 Riverside County
 Coachella Valley Association of Governments
 Southern California Association of Governments
 Thomas Brothers
 Data Current as of 5/7/2002



Scale
 1:425,000



Date: May 29, 2002

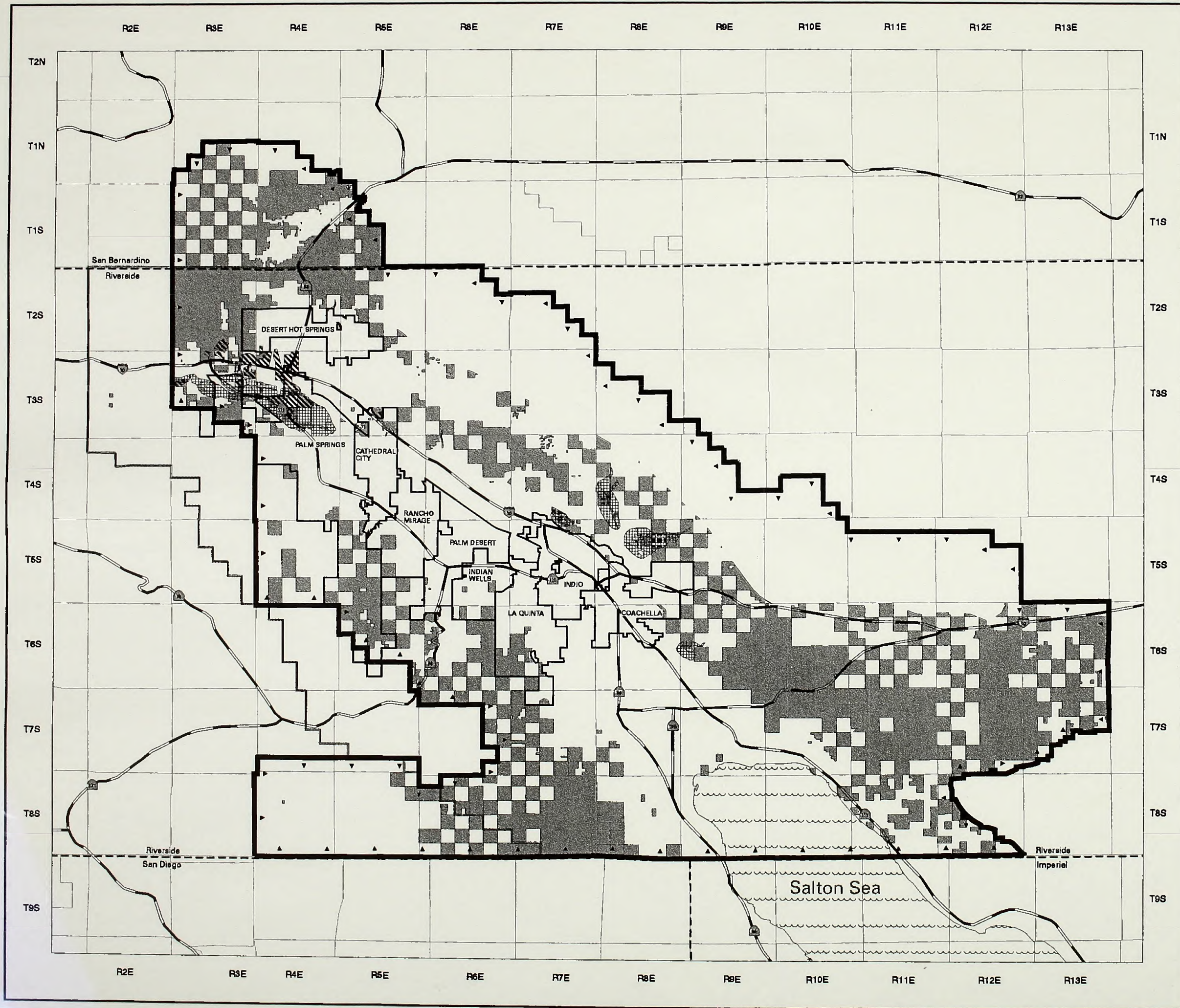
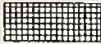
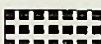



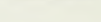


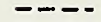


Figure 2-7

Windparks and Sand and Gravel Mining

Legend

-  State of California Division of Mines and Geology Designated Resource Areas
-  Existing Sand and Gravel Mines
-  Existing Windparks
-  BLM Lands
-  California Desert Conservation Area Plan Amendment for the Coachella Valley
-  Coachella Valley MSHCP Boundary
-  City Boundaries
-  County Boundaries
-  Township & Range
-  Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers

Date Current as of 5/7/2002



Scale
1:425,000

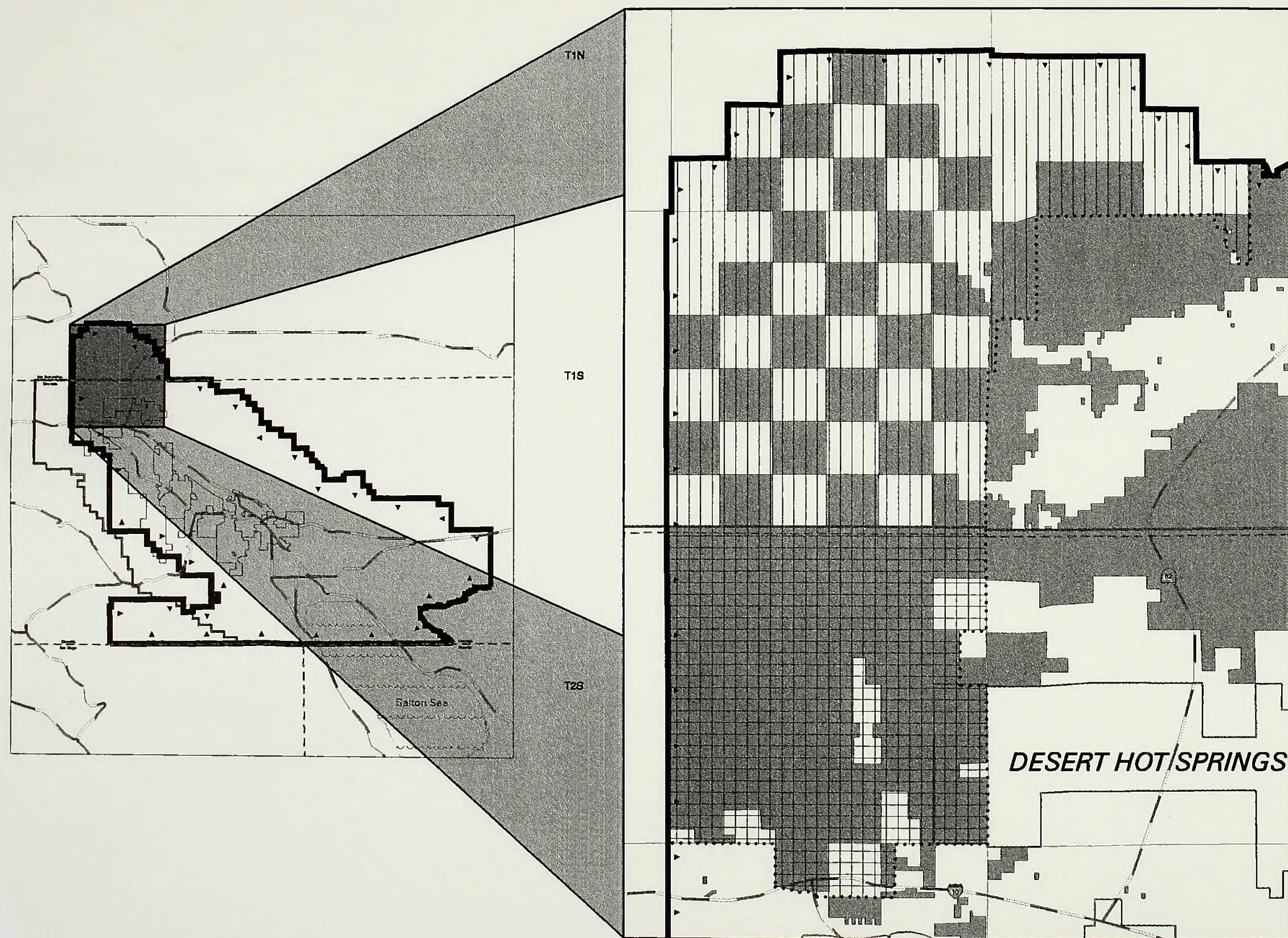


Date: May 29, 2002



R3E

R4E



R3E

R4E

Figure 2-8
Livestock Grazing

Legend

- Existing Whitewater Canyon Allotment
- ||||| Livestock Grazing - Alternatives A & D
- ==== Livestock Grazing - Alternative B
- Livestock Grazing - Preferred Alternative (C)
(The entire existing Whitewater Canyon grazing allotment is deleted.)
- BLM Lands
- ▲ California Desert Conservation Area Plan Amendment for the Coachella Valley
- Coachella Valley MSHCP Boundary
- City Boundaries
- - - County Boundaries
- - - Township & Range
- Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers

Data Current as of 5/7/2002



Scale
1:132,000



Date: May 30, 2002



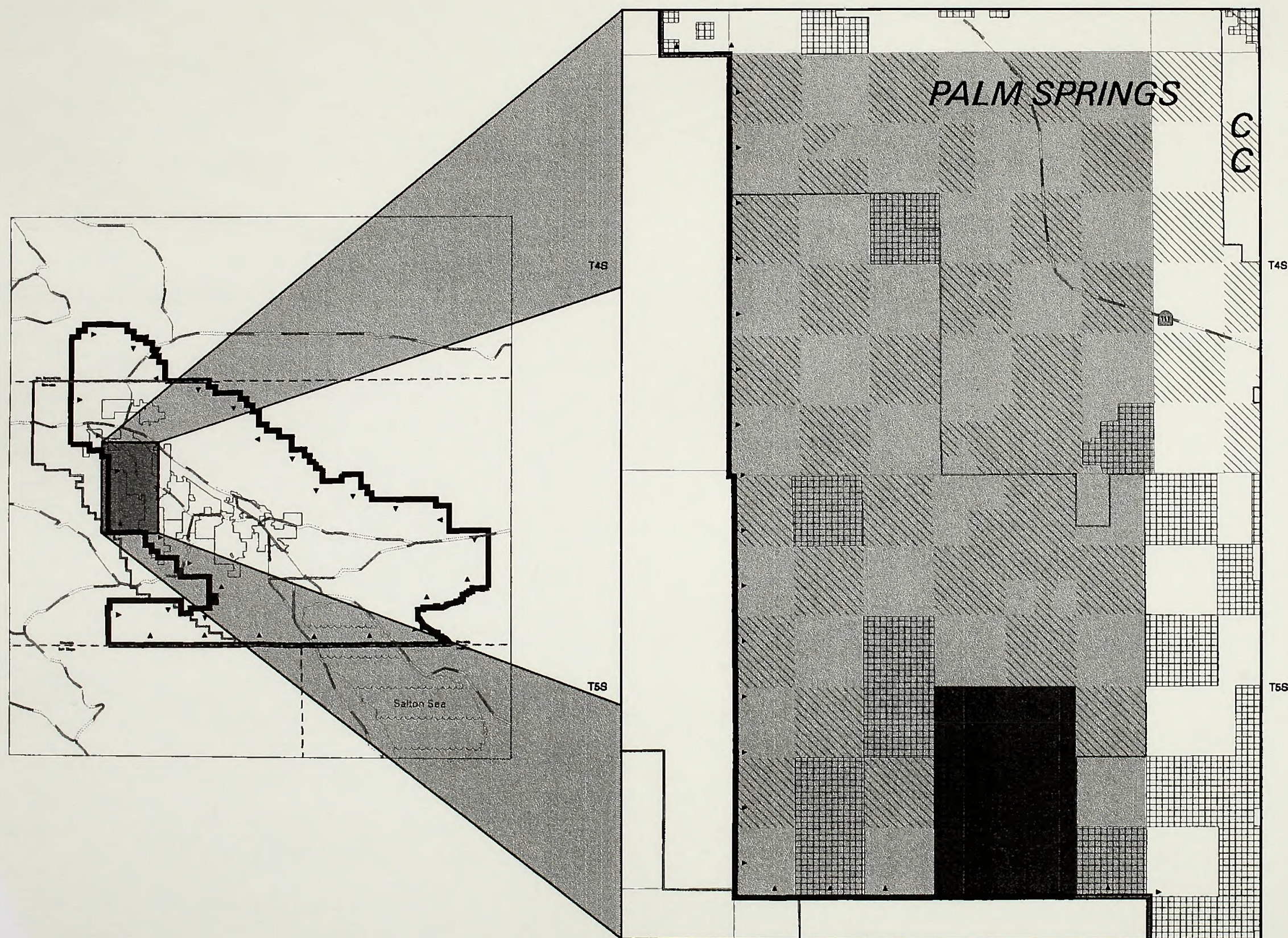



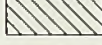
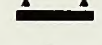



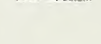
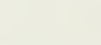


Figure 2-9
Wild Horse and Burro Herd
Management Areas
Preferred Alternative (B)

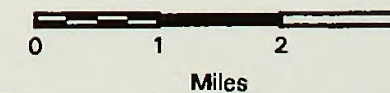
Legend

-  Proposed BLM and Tribal Land Exchange
-  Wild Horse Area
-  BLM Lands
-  Tribal Lands
-  California Desert Conservation Area Plan Amendment for the Coachella Valley
-  Coachella Valley MSHCP Boundary
-  City Boundaries
-  County Boundaries
-  Township & Range
-  Major Highways

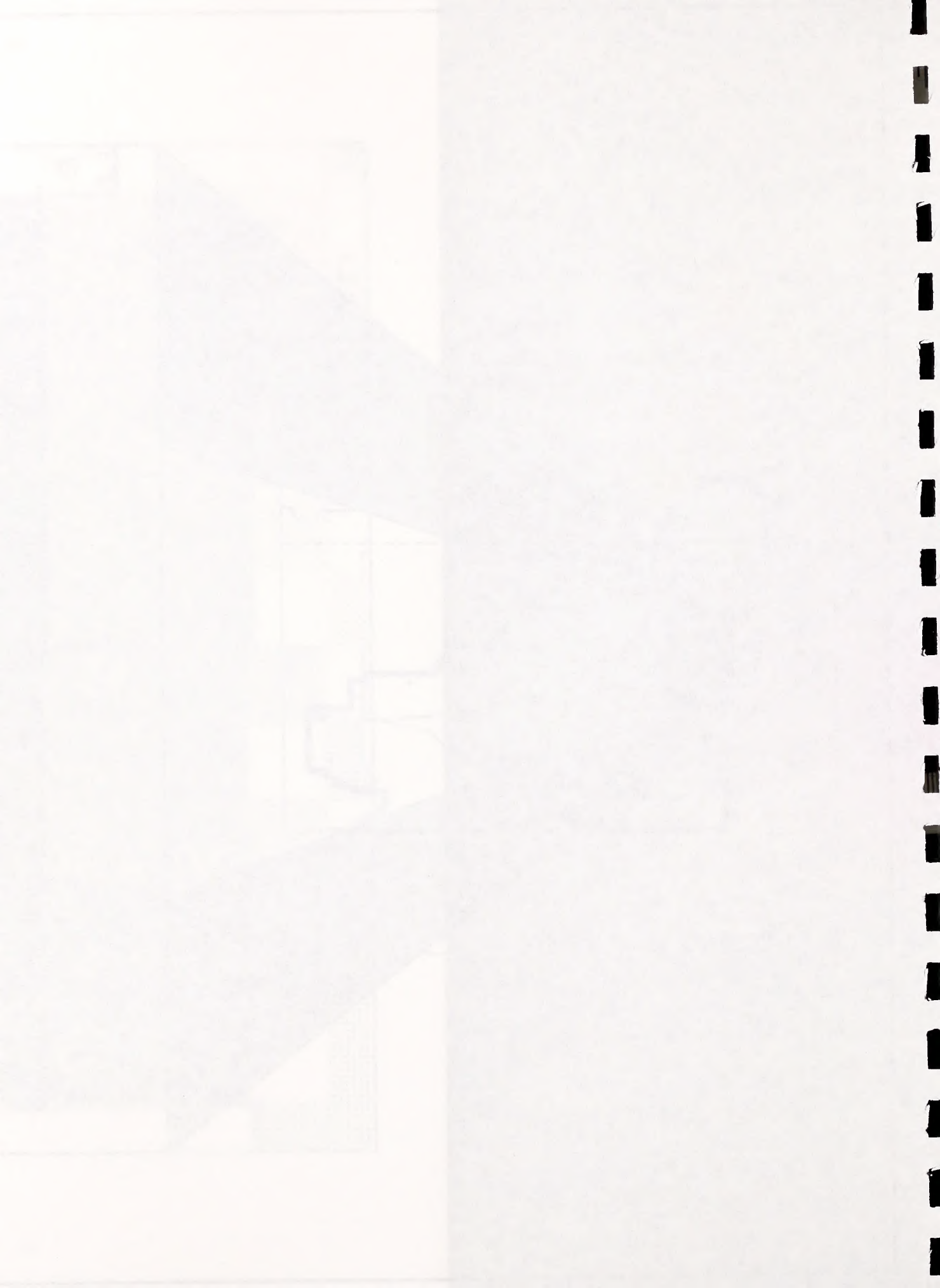
Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers
Date Current as of 5/7/2002



Scale
1:100,000



Date: May 29, 2002



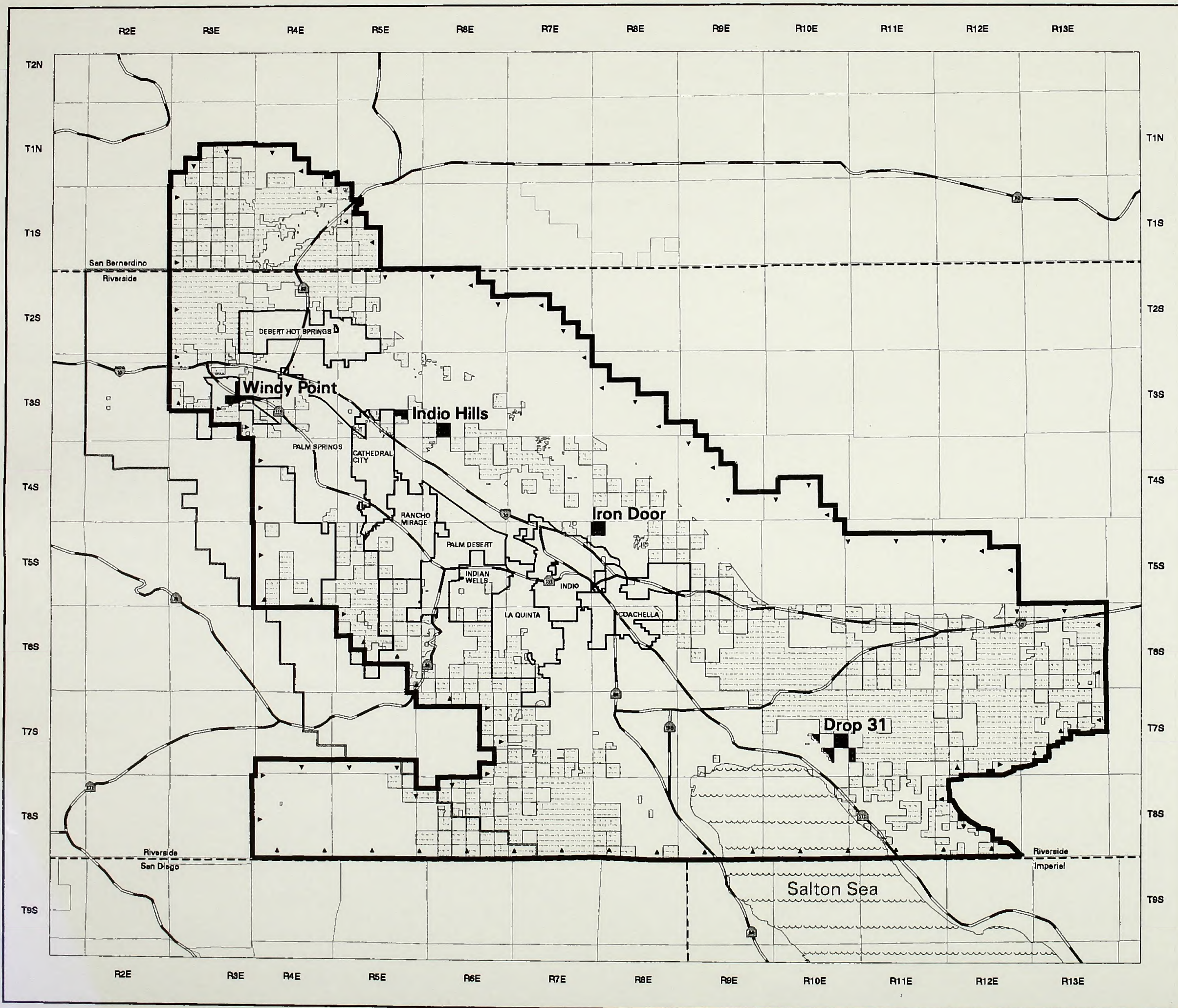


Figure 2-10a
**Motorized Vehicle Area
 Designations
 Alternative (A)**

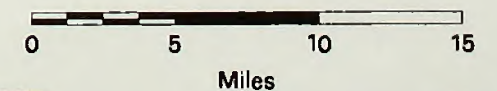
Legend

- Potential Off Highway Vehicle Open Area Designations
- BLM Lands
- California Desert Conservation Area Plan Amendment for the Coachella Valley
- Coachella Valley MSHCP Boundary
- City Boundaries
- County Boundaries
- Township & Range
- Major Highways

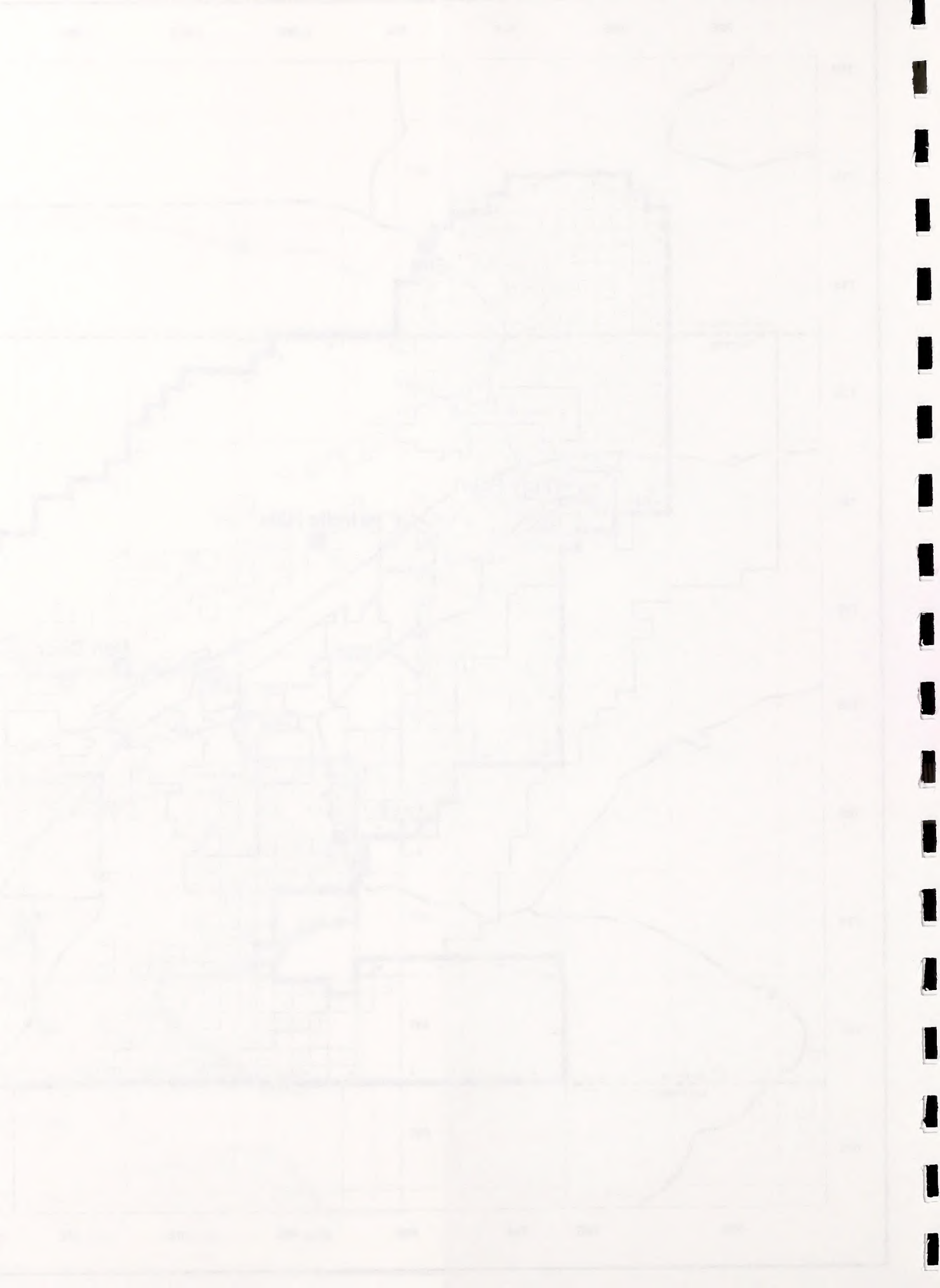
Data Sources: US Geological Service
 Bureau of Land Management
 Riverside County
 Coachella Valley Association of Governments
 Southern California Association of Governments
 Thomas Brothers
 Date Current as of 5/7/2002



Scale
 1:425,000



Date: May 27, 2002



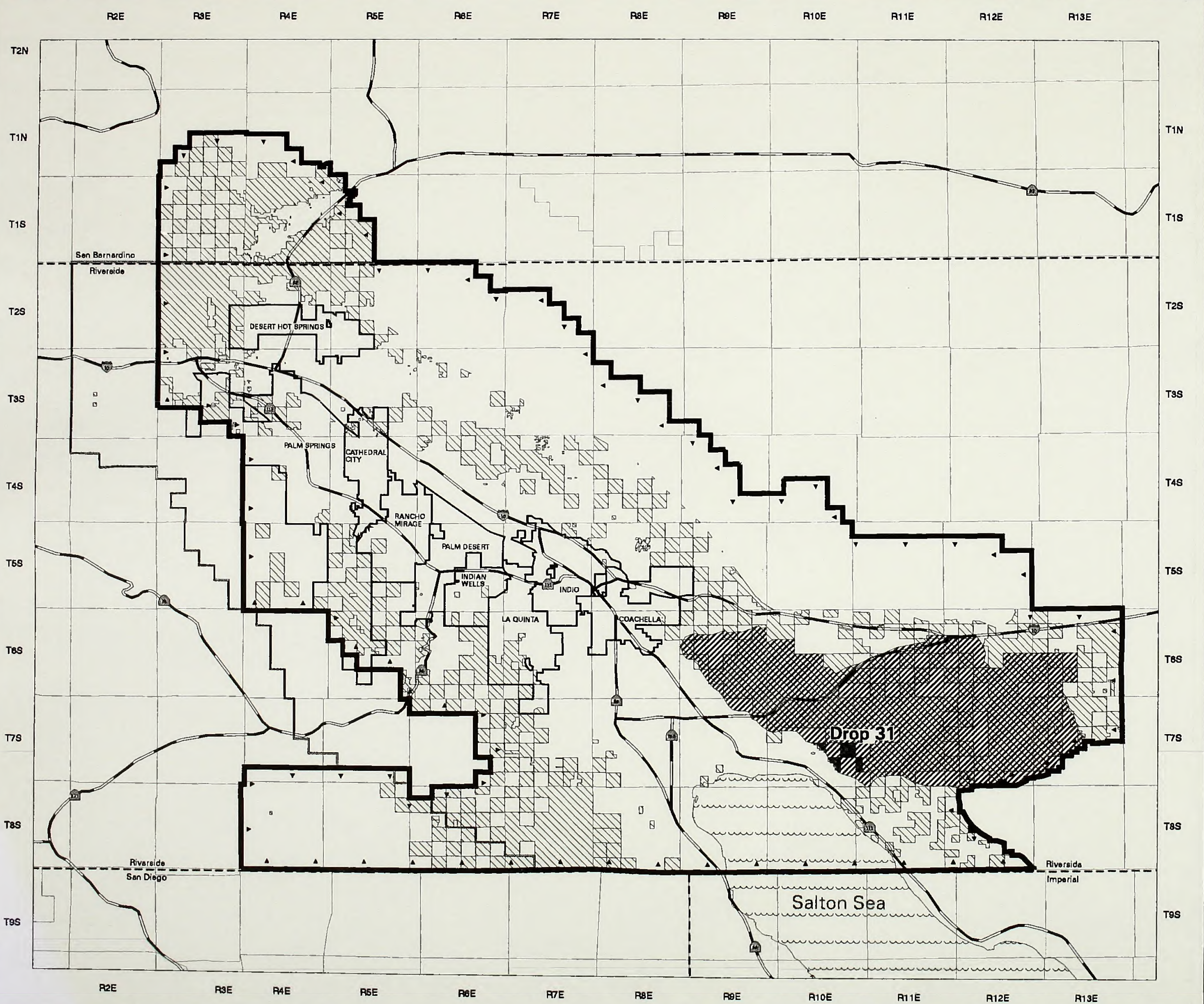
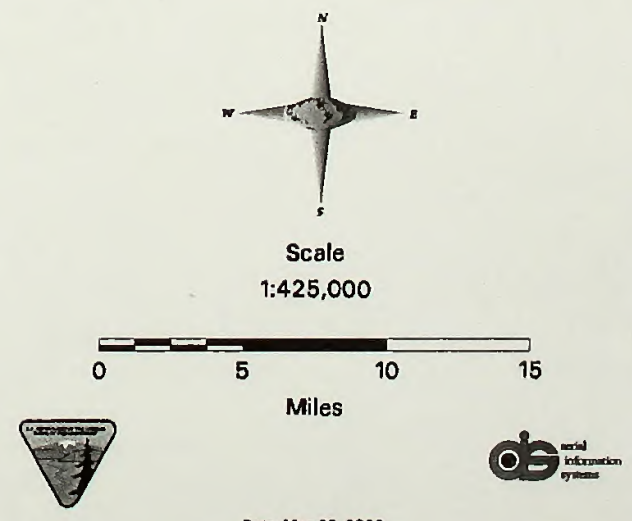
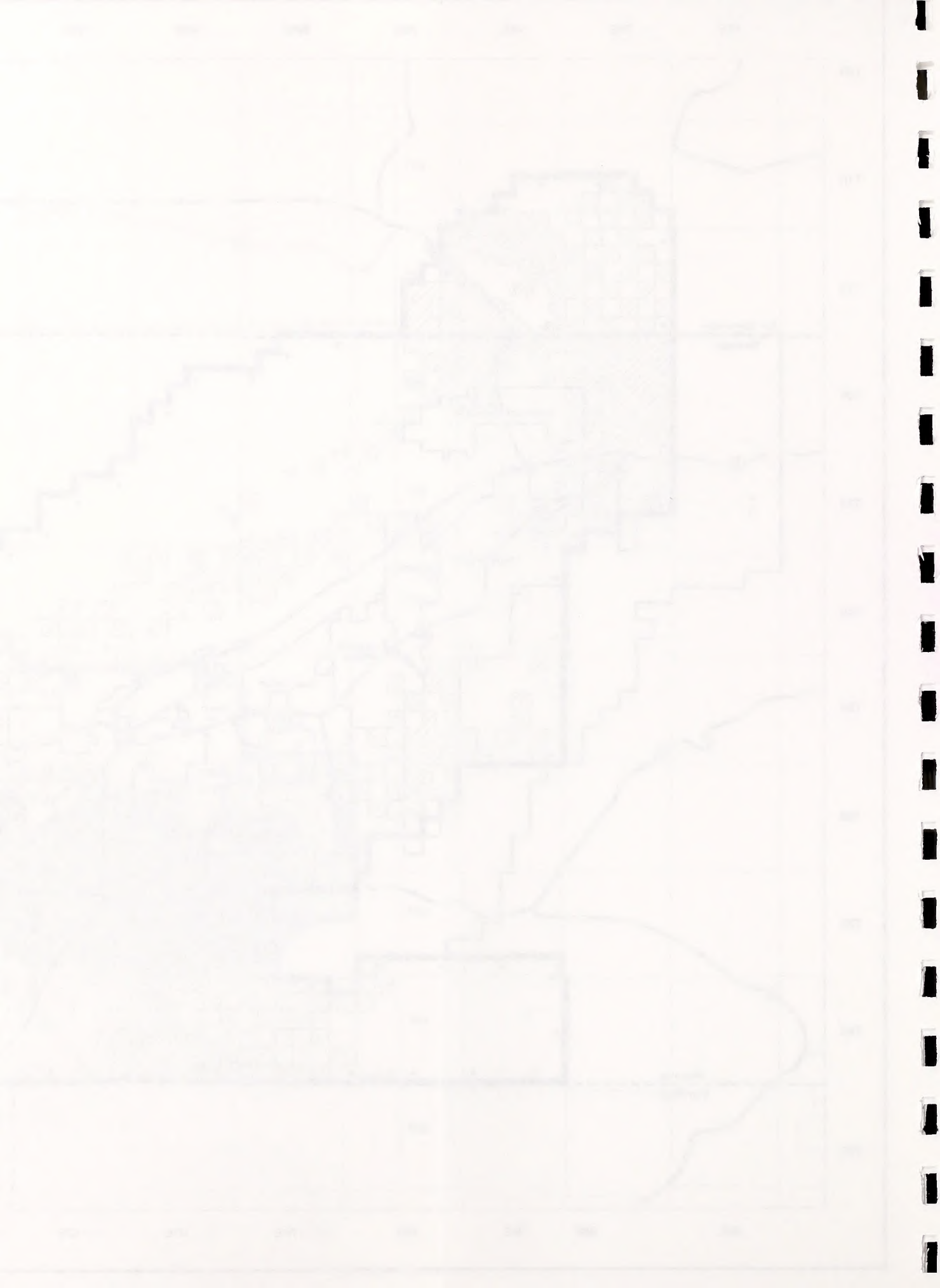


Figure 2-10b
Motorized Vehicle Area Designations
Preferred Alternative (B)
Special Recreation Management Area
Designations - Preferred Alternatives (A,B,C)

- Legend**
- Potential Meccaopia Special Recreation Management Area
 - Potential Open OHV Area
 - BLM Lands
 - California Desert Conservation Area Plan Amendment for the Coachella Valley
 - Coachella Valley MSHCP Boundary
 - City Boundaries
 - County Boundaries
 - Township & Range
 - Major Highways

Data Sources: US Geological Service
 Bureau of Land Management
 Riverside County
 Coachella Valley Association of Governments
 Southern California Association of Governments
 Thomas Brothers
 Data Current as of 5/7/2002





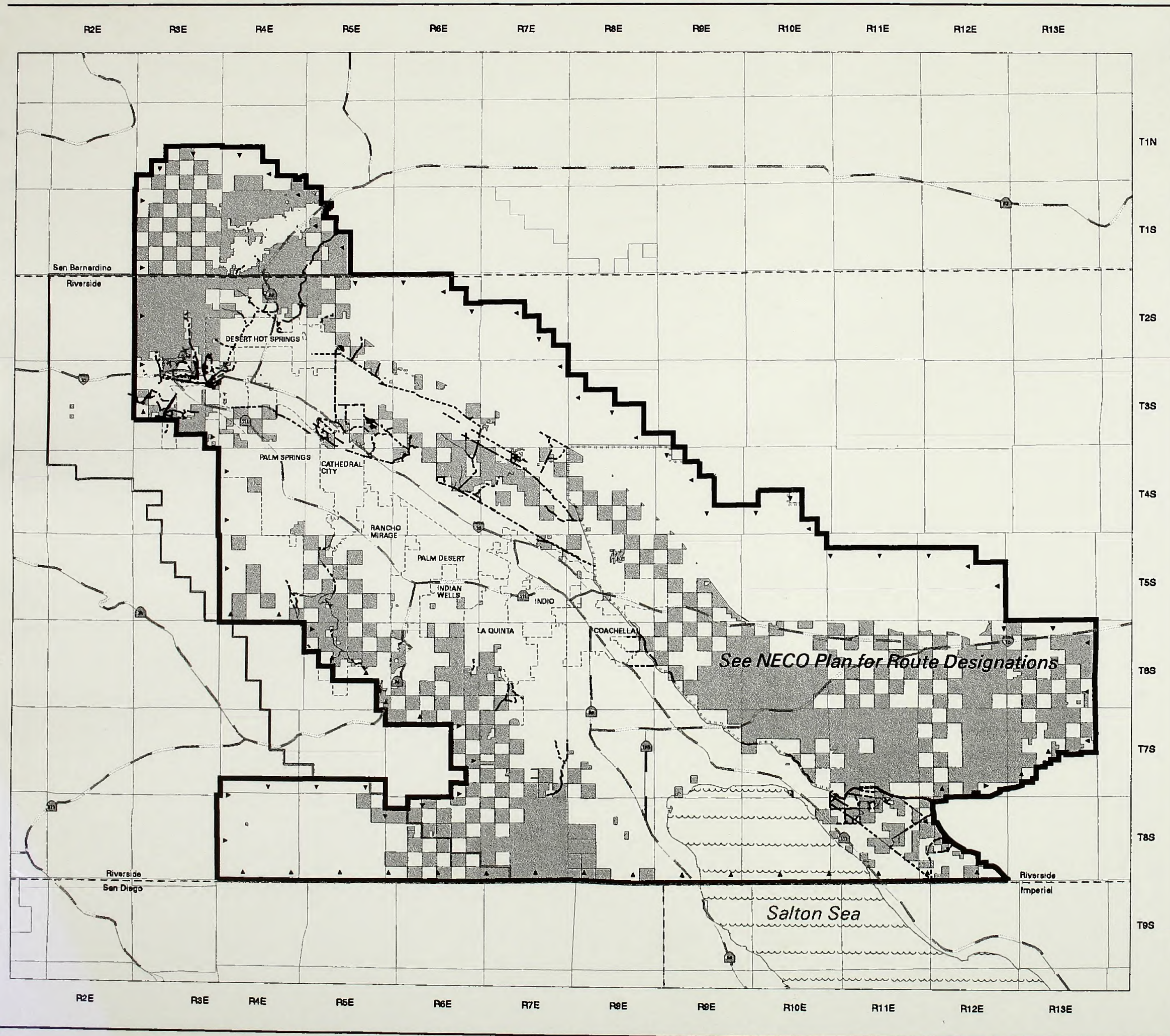


Figure 2-11a

Motorized Vehicle Route Designations Alternative (A)

Legend

- Designated Open Routes (BLM Lands)
- Designated Closed Routes (BLM Lands)
- - - Routes Not Designated (Non-BLM Lands)
- BLM Lands
- ===== NECO Overlap Area
- ▲ California Desert Conservation Area Plan Amendment for the Coachella Valley
- Coachella Valley MSHCP Boundary
- - - City Boundaries
- - - County Boundaries
- - - Township & Range
- Major Highways

Data Sources: US Geological Service
Bureau of Land Management
Riverside County
Coachella Valley Association of Governments
Southern California Association of Governments
Thomas Brothers

Data Current as of 5/7/2002



Scale
1:425,000



Date: May 29, 2002

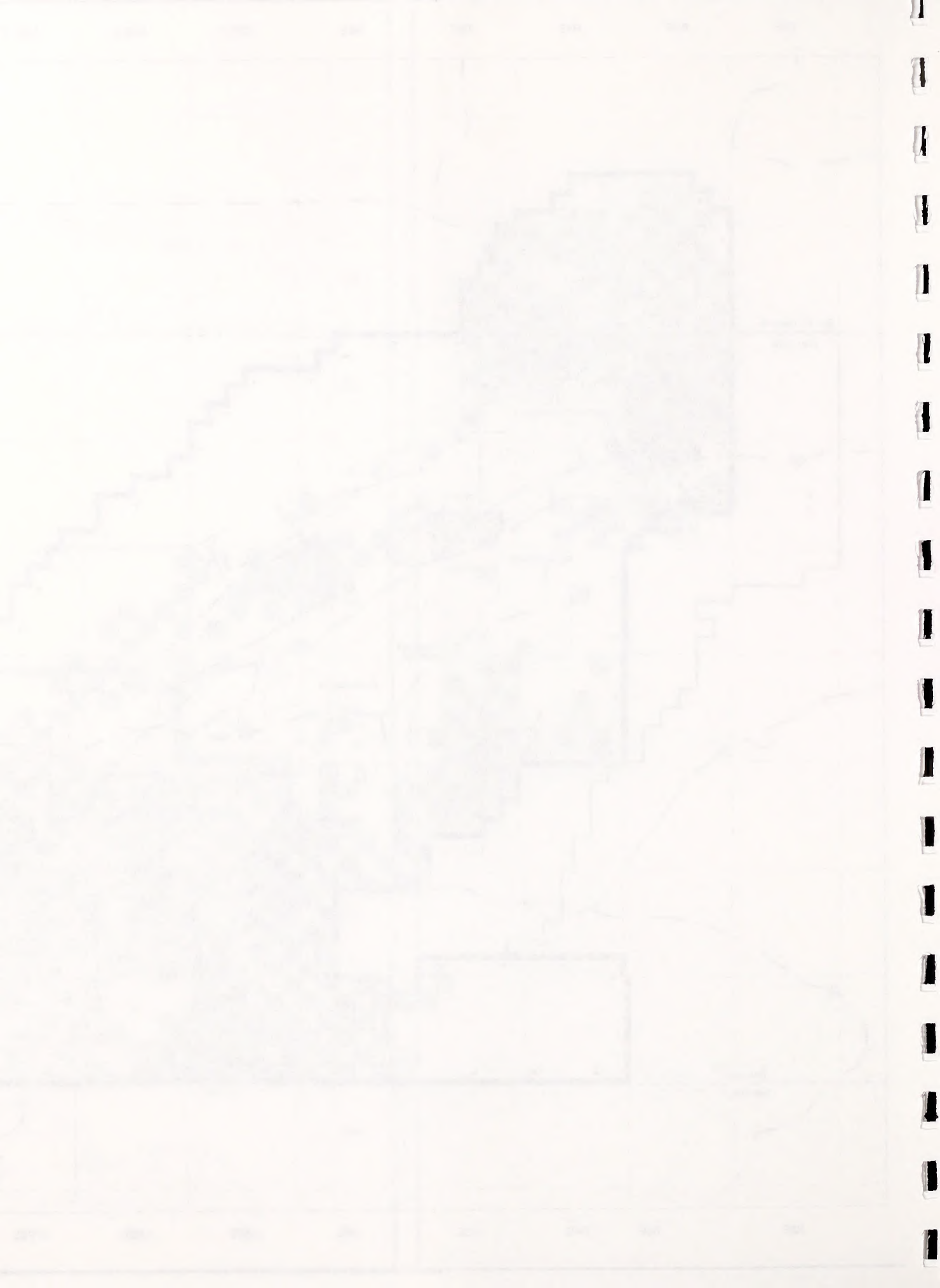


Figure 2-12

Trails Management Plan **Proposed Preferred Alternative (B)**

Legend

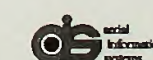
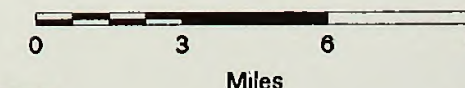
-  Seasonal Trail Area
-  Existing Perimeter Trail Area
-  New Perimeter Trail Area
-  Essential Habitat Boundary for Peninsular Ranges Bighorn Sheep
-  Trails in the Santa Rosa and San Jacinto Mountains
-  BLM Lands
-  Tribal Lands, Not a Part
-  California Desert Conservation Area Plan Amendment for the Coachella Valley
-  Coachella Valley MSHCP Boundary
-  City Boundaries
-  County Boundaries
-  Township & Range
-  Major Highways

Data Sources: US Geological Service
 Bureau of Land Management
 Riverside County
 Coachella Valley Association of Governments
 Southern California Association of Governments
 Thomas Brothers

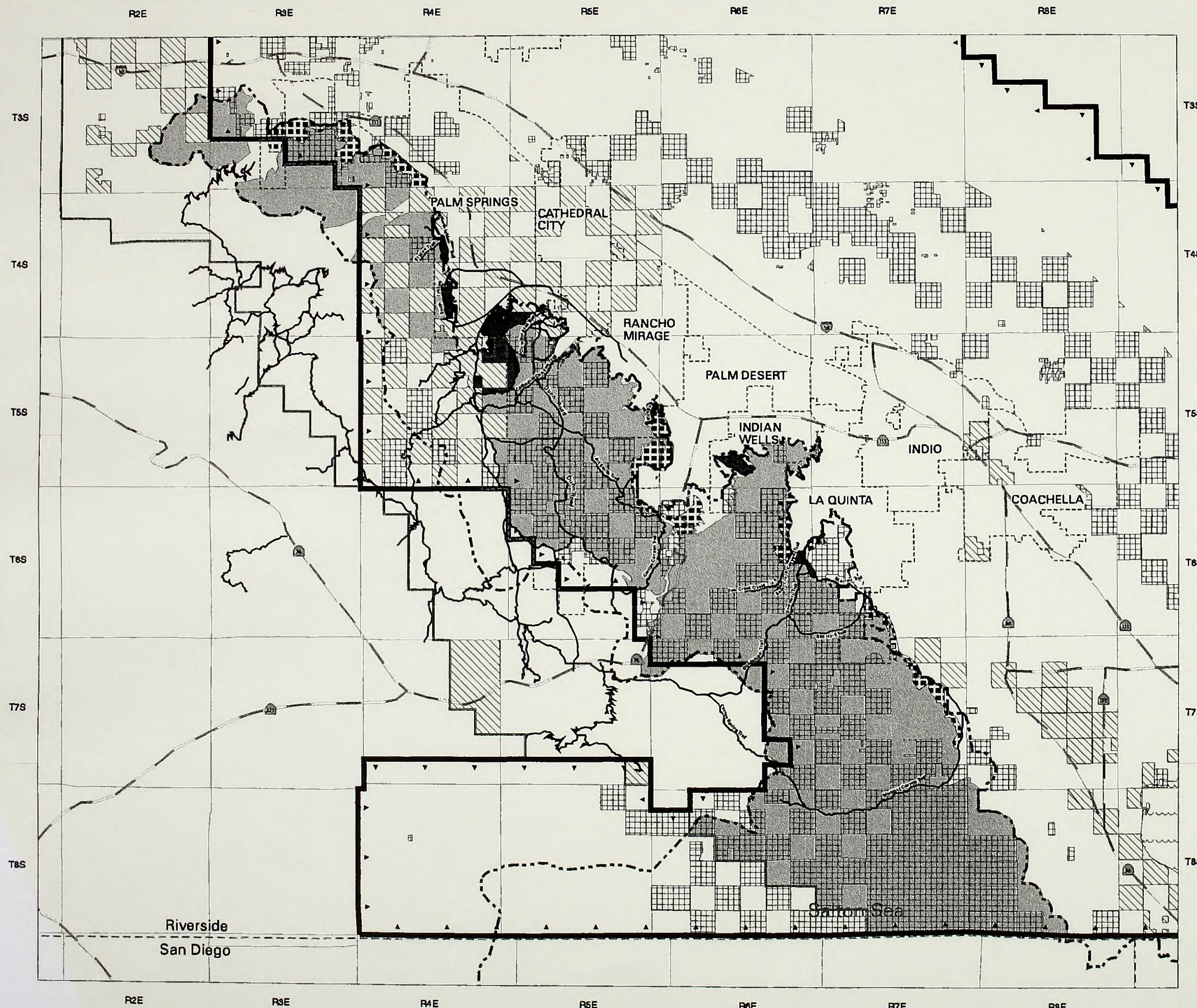
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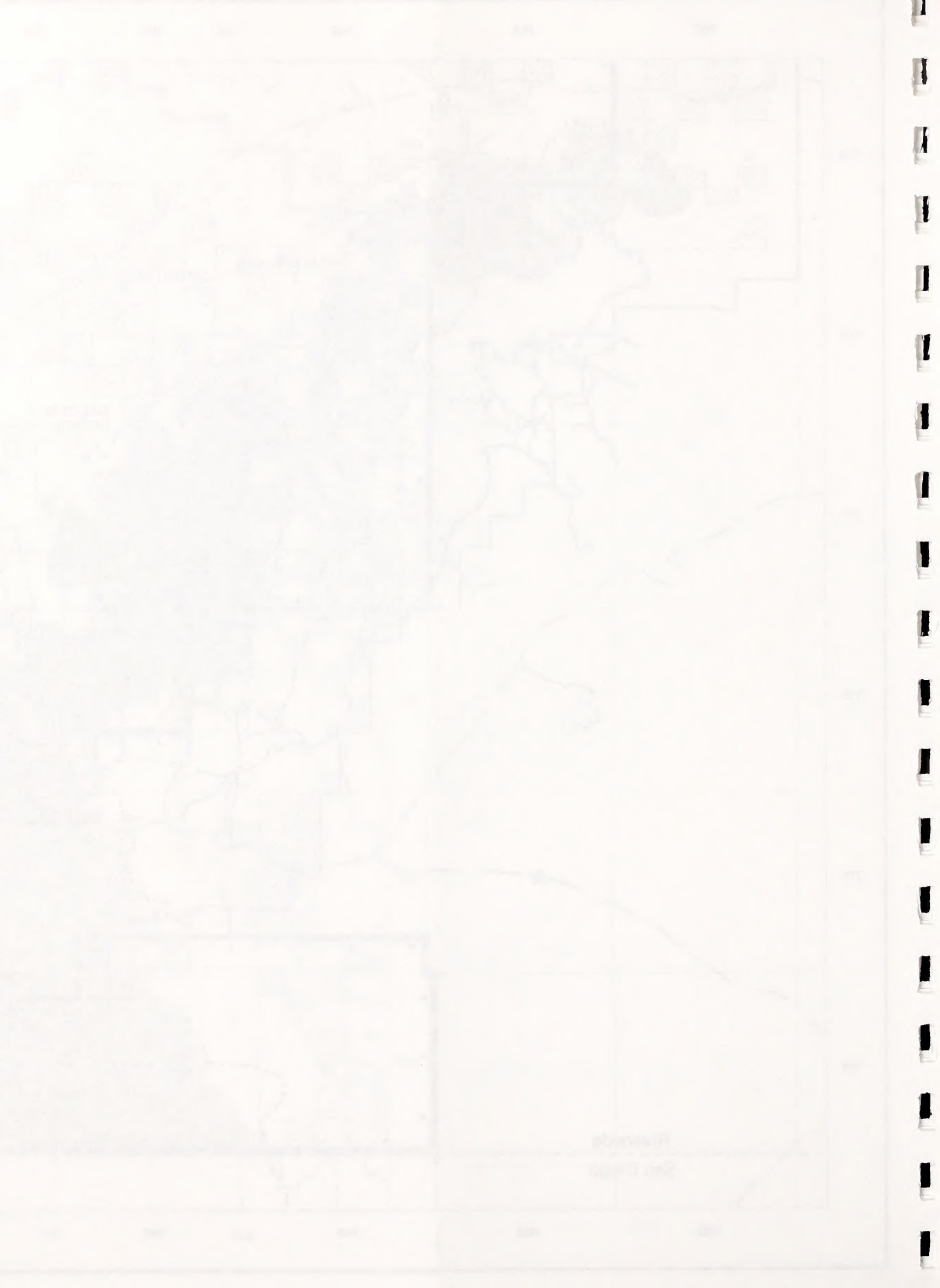


Scale
 1:250,000



Date: May 30, 2002





3.0 AFFECTED ENVIRONMENT

This chapter describes the resources and uses within the BLM-administered lands in Coachella Valley California Desert Conservation Area that may be affected by this CDCA plan amendment. The information provided here serves as base-line data for analyzing the various alternatives.

3.1. Land Use Designations

As a multiple use agency, the BLM is uniquely challenged to both develop and conserve the public lands and natural resources for present and future generations. Rarely do a wide variety of public uses occur on the same parcel of BLM-managed public land due to land use and resource conflicts. Generally, the BLM will designate certain public lands for one suite of compatible use and designate other lands for a different suite of compatible uses. Overall, the BLM remains consistent with its multiple-use mandate.

The rapid urbanization occurring in the Coachella Valley and throughout Southern California is putting additional pressure on the BLM-managed public lands to meet the multiple use needs of the community. These uses range from additional communication sites for cellular phones, sand and gravel mineral material sources for urban development, and public access for a variety of recreational opportunities, to multi-species habitat conservation. Public interest in land exchanges with the BLM also increases as urbanization interfaces with and at times encroaches on the BLM-managed lands.

The intensity and variety of multiple uses the community requests of the BLM-managed public lands requires a high level of coordination and collaboration with all the interested constituents to ensure the various multiple uses are taken into consideration. This planning process is an excellent opportunity to coordinate with all the interested constituents and to minimize land use conflicts on the BLM-managed public lands.

3.1.1 Existing Land Use Designations

Many of the BLM-managed public lands within the planning boundary have existing land use designations for the protection of natural and cultural values, including five Areas of Critical Environmental Concern (ACEC), all or portions of four wilderness areas, and a congressionally-designated national monument (Figure 3-1). A description of these existing lands use designations follows.

Chuckwalla Bench Area of Critical Environmental Concern. The Chuckwalla Bench ACEC was established for its exceptional desert tortoise densities, the highest in the Sonoran Desert, and as a rich relic representative of Sonoran Desert with a full compliment of wildlife and plant species including several rare plants.

Dos Palmas Preserve/Area of Critical Environmental Concern. The Dos Palmas ACEC lies east of the Salton Sea. Biological resource values within the ACEC include desert fan palm oasis woodland, desert dry wash woodland, mesquite bosque, stabilized desert sand fields, desert saltbush scrub, desert sink scrub, and freshwater marsh, and habitat for the desert pupfish, Yuma clapper rail, California black rails, flat-tailed horned lizard, yellow bat, and the Palm Springs pocket mouse. The area also includes small communities of desert saltbrush scrub and coastal and valley freshwater marsh.

Whitewater Canyon Area of Critical Environmental Concern. The Whitewater Canyon ACEC is located in the mountains north of San Geronio Pass in the Whitewater River canyon. The portion within the Plan area encompasses approximately 11,200 acres, including 10,000 acres of federal land and approximately 1,200 acres of private land. About 75 percent of the Whitewater Canyon ACEC is within the San Geronio Wilderness. Biological resources include riparian woodlands, mesquite thickets, a fan palm oasis, and habitat for arroyo toad, desert tortoise, and--during migration--the least Bell's vireo, southwestern willow flycatcher, and other riparian species.

Big Morongo Canyon Preserve/Area of Critical Environmental Concern. The Big Morongo Canyon Preserve was designated as a BLM Area of Critical Environmental Concern in 1982 and expanded in 1998. The Preserve begins about one half-mile southeast of the town of Morongo Valley in the Little San Bernardino Mountains and opens at the canyon bottom into the west end of the Coachella Valley. In 1998, the CDCA plan was amended to expand the ACEC boundary in order to minimize habitat fragmentation and maintain the wildlife corridor links between the San Geronio Wilderness to the west and Joshua Tree National Park to the east. Ownership in the Plan area is approximately 20,500 acres federal and approximately 540 acres private. The area's biological resources include riparian woodlands, desert dry wash woodland, and habitat for triple ribbed milkvetch and Little San Bernardino Mountains gila.

Coachella Valley Preserve System. The predominant resource protection area in this region is the Coachella Valley Preserve System. This System was established in 1985 by the Coachella Valley Fringe-toed Lizard Habitat Conservation Plan and consists of the three different management areas: the Coachella Valley Preserve, the Willow Hole/Edom Hill Preserve, and the Whitewater Floodplain Preserve. Each of these areas is cooperatively managed by the BLM, USFWS, California Department of Fish and Game, California Department of Parks and Recreation, and the Center for Natural Lands Management. The Willow Hole/Edom Hill Preserve, which is also an ACEC, consists of two distinct areas-- Willow Hole and Edom Hill. The Coachella Valley Preserve System is intended primarily to protect and enhance the habitat of the endangered Coachella Valley fringe-toed lizard, although the Preserve provides habitat for additional threatened and endangered species. Biological resource values within the Preserve include mesquite hummocks, a fan palm oasis, and habitat for the Coachella Valley fringe-toed lizard, Coachella Valley milk-vetch, Little San Bernardino Mountains gila, Palm Springs ground squirrel, Palm Springs pocket mouse, burrowing owl, crissal thrasher, yellow warbler, yellow-breasted chat, least Bell's vireo, and the Coachella Valley giant sand treader cricket.

Santa Rosa Wilderness Additions. Designated in 1994 by the California Desert Protection Act (CDPA), this wilderness area is located at the southern end of the Coachella Valley. Approximately 91,750 acres (all jurisdictions) is located within the CVMSHCP planning area. This wilderness exhibits outstanding characteristics of solitude and opportunities for primitive recreation. Resource values include habitat for Peninsular desert bighorn sheep, desert slender salamander, and many bat species. This steep, rugged wilderness contains a diversity of natural communities, including Sonoran Creosote Bush Scrub, Desert Dry Wash Woodland, Semi-Desert Chaparral, and Pinyon Pine-Juniper Woodland.

San Geronio Wilderness Additions. Approximately 54,670 acres (all jurisdictions) of the San Geronio Wilderness Additions are included within the planning area. Outstanding qualities of wilderness are protected in this area, including an unusually high level of biodiversity. The confluence of Mojave Desert, Sonoran Desert, Montane, and Coastal influences results in plant associations that are found in few other places.

Habitat is present for many special status species, including the least Bell's vireo, southwestern willow flycatcher, arroyo toad, triple-ribbed milkvetch, and desert tortoise. USFWS-designated critical habitat is present for the arroyo toad in lower Whitewater Canyon. This wilderness is also a Class I airshed under the Clean Air Act.

Mecca Hills and Orocopia Mountains Wilderness Areas. The 30,363-acre Mecca Hills Wilderness (all jurisdictions) contains spectacularly eroded badlands, Sonoran Creosote Bush Scrub and two Desert Fan Palm Oasis Woodlands. The 54,683-acre Orocopia Mountains Wilderness (all jurisdictions) is located east of and adjacent to the Mecca Hills Wilderness and includes Sonoran Creosote Bush Scrub and Desert Dry Wash Woodland vegetative communities. Sensitive species found in both areas include desert tortoise, Mecca aster, and Orocopia sage.

Santa Rosa and San Jacinto Mountains National Monument. The Santa Rosa and San Jacinto Mountains closely align with the boundary of the Santa Rosa and San Jacinto Mountains National Monument. The BLM manages approximately 90,000 acres of land within this area, which mostly occurs at elevations near sea level to over 6,000 feet. The vegetation ranges from Sonoran Creosote Bush Scrub communities and Pinyon Pine/Juniper Woodland communities at the higher elevations. Portions of this area interface with several Coachella Valley communities, including Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, and La Quinta. This area is habitat for the endangered Peninsular Ranges bighorn sheep.

Northern and Eastern Colorado (NECO) Desert Coordinated Management Plan Overlap Area. The Northern and Eastern Colorado (NECO) Desert Coordinated Management Plan overlap area includes all lands between the western edge of the NECO boundary just east of Indio to the eastern edge of the CVMSHCP planning boundary. The NECO boundary begins just east of the Coachella Valley Preserve and runs southeast along the northern edge of the Coachella Canal.

West Mojave Plan Overlap Area. This planning overlap area includes those portions of the San Geronio Wilderness and Big Morongo Canyon ACEC within San Bernardino County (Townships 1 North and 1 South, Ranges 3, 4 and 5 East.).

3.1.2 Potential Areas of Critical Environmental Concern

FLPMA [202(c)(3)] authorizes BLM to designate Areas of Critical Environmental Concern (ACEC) which are areas requiring special management attention to protect important historic, cultural or scenic values, fish and wildlife resources, natural systems and processes, or to protect life and safety from natural hazards. ACECs are designated through the BLM planning process in accordance with 43 CFR 1610.7-2. Unlike Congressionally designated wilderness, ACEC designation does not automatically close an area to motorized vehicles.

Proposed ACECs and expansions must meet the criteria for relevance and importance established in 43 CFR 1610.7-2(a) prior to designation. Relevance means that "there shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard. Importance means that "the above described value, resource system, process or hazard shall have substantial significance and values. This generally requires qualities of more than local significance..." In addition, the BLM must determine whether the resources or values that meet the criteria require special attention and therefore, warrant designation as an ACEC. The following is a discussion of the relevance and importance of the resources contained within the potential ACECs and potential ACEC expansion areas addressed through this CDCA Plan Amendment.

3.1.2.1 Potential Dos Palmas ACEC Expansion

The BLM parcels included in the potential expansion area to the existing Dos Palmas ACEC are listed in Table 3-1. A description of the habitat values is also included.

Table 3-1 Potential Dos Palmas ACEC Expansion Area

Township, Range, Section	Approximate Acreage	Habitat Values
T.8 S., R. 12 E., Sections 6, 20, 26, 32, 34	2280	Least Bell's vireo, Southwestern willow flycatcher, Summer tanager, Yellow-breasted chat, and Yellow warbler potential migratory habitat
T.8 S., R. 12 E., Sec. 20	440	Least Bell's vireo, Southwestern willow flycatcher, Summer tanager, and Yellow warbler potential breeding habitat; Southern yellow bat potential distribution
T.8 S., R. 12 E., Sec. 32	480	Crissal thrasher potential distribution
T.8 S., R. 12 E., Sections 6, 20, 28, 26; T.8 S., R.11 E., Sec.32	1960	Orocopia sage potential distribution

Relevance. Absent field surveys to verify the presence of the aforementioned species within the modeled potential habitat, it is not possible to establish the relevance of the Dos Palmas ACEC potential expansion area at this time.

Importance. If as a result of field surveys, the aforementioned species are found to be present within the modeled potential habitat, the expansion area would have substantial significance and value, meeting the criteria for ACEC importance. Dos Palmas is a known winter holding area, and migratory and breeding habitat for migratory birds along the Pacific Coast migratory bird route. As urban development continues to encroach on wetlands and riparian areas throughout the West, migratory bird stopovers such as Dos Palmas become more critical for conserving threatened and endangered species, especially migratory birds. Moreover, conservation of all threatened and endangered species which may be present in the potential expansion area, is important to the citizens of the Coachella Valley as part of a multi-jurisdictional effort to establish an effective regional multi-species reserve system.

3.1.2.2 Potential Upper Mission Creek ACEC

The BLM parcels included in the potential Upper Mission Creek ACEC are listed in Table 3-2. A description of the habitat values is also provided.

Table 3-2 Potential Upper Mission Creek ACEC

Township, Range, Section	Approximate Acreage	Habitat Values
T.2 S., R. 3 E., Sections 2, 11	960	Triple ribbed milk-vetch known locations. Southwestern willow flycatcher, Least Bell's vireo, yellow breasted chat, yellow warbler and summer tanager potential breeding habitat
T.2 S., R. 4 E., Sections 18	20	Little San Bernardino Mountains gilia known location
T.2 S., R. 3 E., Section 11	640	Crissal thrasher potential distribution; Coachella Valley milk-vetch, Southwestern willow flycatcher, Least Bell's vireo, yellow breasted chat, yellow warbler and summer tanager known locations
T.2 S., R. 3 E., Sections 24, 25	1200	Southwestern willow flycatcher, Least Bell's vireo, yellow breasted chat, yellow warbler and summer tanager potential migratory habitat; Burrowing owl known locations
T.2 S., R. 3 E., Section 25	560	Coachella Valley milk-vetch potential distribution
T.2 S., R. 3 E., Sections 1, 13, 14, 23, 26, 35, 36; T.2 S., R.4 E., Sections 6, 14	3960	These parcels are part of an ecotone for three life zones. No sensitive species habitat values identified within these sections.

Relevance. The sandy wash and riparian portions of the potential ACEC contain known locations of several threatened and endangered species including triple ribbed milk-vetch, Little San Bernardino Mountains gilia, Coachella Valley milk-vetch, burrowing owl, Southwestern willow flycatcher, Least Bell's vireo, yellow breasted chat, yellow warbler and summer tanager. The presence of these threatened and endangered species lend relevance for ACEC designation for those BLM parcels. Those BLM parcels are already within protective status as part of the San Geronimo wilderness area. No sensitive species were identified within the remainder (and majority) of the potential ACEC. Absent field surveys to verify the presence of listed species within the modeled potential habitat, it is not possible to establish the relevance of these potential ACEC parcels at this time.

Importance. The entire potential ACEC is situated at the interface of three different life zones (called ecotones): 1) montane/chaparral, 2) Sonoran (low) desert, and 3) Mojave (high) desert. Ecotonal areas typically contain high biodiversity due to convergence of different species from the different life zones, and ecotones commonly include a number of highly adaptable species than tend to colonize such transitional areas. Conservation of threatened and endangered species and areas of high biodiversity are important to the citizens of the Coachella Valley as part of a multi-jurisdictional effort to establish an effective regional multi-species reserve system. The multi-species reserve system would serve as the basis for issuance of a Section 10 permit from the USFWS, to the local jurisdictions, thereby facilitating development of private lands outside the reserve system.

3.1.2.3 Potential Coachella Valley ACEC

All BLM parcels located within the CVMSHCP conservation areas would be included in the potential Coachella Valley ACEC. A summary of the habitat values within the potential Coachella Valley ACEC, described by habitat type, is provided in Table 2-4: "Habitat Conservation Objectives." A more detailed description may be found in the technical appendices for the Coachella Valley Multi-Species Habitat Conservation Plan.

Relevance. BLM parcels with sandy wash and riparian habitat contain known locations of several threatened and endangered species including triple ribbed milk-vetch, Little San Bernardino Mountains gilia, Coachella Valley milk-vetch, burrowing owl, Southwestern willow flycatcher, Least Bell's vireo, yellow breasted chat, yellow warbler and summer tanager. The presence of these threatened and endangered species lend relevance for ACEC designation for those BLM parcels. Most of the known locations of threatened and endangered species on BLM lands are already within protective status totaling approximately 228,917 acres, be it the Big Morongo Canyon ACEC, Whitewater Canyon ACEC, San Geronio Wilderness, Coachella Valley Fringe-toed Lizard Preserve ACEC, Mecca Hills Wilderness, Orocopia Mountains Wilderness, the Dos Palmas ACEC, Santa Rosa Mountains Wilderness and the Santa Rosa and San Jacinto Mountains National Monument.

For the remaining BLM lands within the conservation areas (approximately 23,631 acres) these contain potential habitat for a suite of listed species based on species distribution models prepared for the Coachella Valley Multi-Species Habitat Conservation. Absent field surveys to verify the presence of listed species within the modeled potential habitat, it is not possible to establish the relevance of these BLM parcels at this time.

Importance. Conservation of threatened and endangered species and areas of high biodiversity are important to the citizens of the Coachella Valley as part of a multi-jurisdictional effort to establish an effective regional multi-species reserve system. The multi-species reserve system would serve as the basis for issuance of a Section 10 permit from the USFWS, to the local jurisdictions, thereby facilitating development of private lands outside the reserve system.

3.1.3 Wild and Scenic Rivers

In accordance with the Wild and Scenic Rivers Act of 1968 (PL 90-542), the BLM shall identify and evaluate all rivers that have potential for wild and scenic river designation. To be eligible for designation, a river must be free-flowing and contain at least one Outstandingly Remarkable Value (ORV), i.e., scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar value. A "river" means a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes. "Free-flowing" is defined as "existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway." Rivers with intermittent or non-perennial flows may be eligible for designation.

There are three instances when federal agencies assess eligibility: 1) at the request of Congress through specific authorized studies; 2) through their respective agency planning processes; or 3) by the National Park Service evaluation of a Section 2(a)(ii) application (pursuant to designation of wild, scenic, or recreational rivers by an act of the State legislature). Regarding potential rivers on public lands in the Coachella Valley Planning Area, Congress has not authorized specific studies, and no application has been filed with the Secretary of the Interior to include any State-designated river in the National Wild and Scenic Rivers System. Hence, eligibility determinations at this time are limited to those rivers identified through the resource management planning process.

Identification of potentially eligible rivers may occur at several stages of the planning process: pre-planning, public scoping of issues, analysis of the management situation, and public review of the draft plan or plan amendment. Also, if a river or river segment is identified in an official publication or list of another agency or river support organization, a case can be made to consider it. No rivers or river segments were specifically identified during pre-planning or the public scoping of issues for the Coachella Valley CDCA Plan Amendments, nor do any rivers or river segments within the Planning Area appear on the list of another agency or river support organization. However, the Nationwide Rivers Inventory (NRI) includes the North, East, South and Middle Forks of Whitewater River in the San Bernardino National Forest (San Bernardino County). Under a 1979 Presidential directive, and related Council on Environmental Quality procedures, all federal agencies were directed to avoid or mitigate actions that would adversely affect one or more NRI segments. The confluence of these forks occurs near the boundary of the BLM San Gorgonio Wilderness Additions with the main channel traversing the wilderness area. Also, the U.S. Forest Service, through its current amendment process, is considering eligibility of river segments in Palm Canyon for designation as a wild and scenic river. Hence, segments of these rivers on BLM-managed lands are also identified for consideration.

Through analysis of the management situation, four other river segments were considered for potential eligibility: the Mission Creek channel within the San Gorgonio Wilderness Additions, Little Morongo Canyon, Big Morongo Canyon, and Whitewater Canyon south of the Whitewater Trout Farm. Of all river segments considered, those on BLM-managed lands in Whitewater Canyon (within the San Gorgonio Wilderness Additions only), the Mission Creek channel (within the San Gorgonio Wilderness Additions only), and Palm Canyon are determined eligible for designation as wild and scenic rivers. The other river segments are determined as not eligible. Documentation of eligibility for each of these river segments is included in Appendix B.

Once a river segment has been determined eligible and given a tentative classification as "wild," "scenic," and/or "recreational," BLM is required to protect its free-flowing characteristics; protect, and to the degree practicable, enhance the Outstanding Remarkable Values which contribute to the river segment's eligibility; and ensure that its eligibility or

tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. If suitability determinations are not made through the resource management planning process, the resource management plan must prescribe protective management measures to ensure protection shall be afforded the river and adjacent public land area pending the suitability determination and, when necessary, subsequent action by the Congress (Appendix B). In addition, a separate legislative EIS is required as part of a separate reporting package (and plan amendment) to make the suitability determination.

3.1.4 Wilderness

The planning area contains four designated BLM wilderness areas: Santa Rosa Wilderness Additions, San Geronio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness. These wilderness areas were designated by Congress on October 31, 1994, through the California Desert Protection Act, PL 103-433. Like all other federal wilderness areas, these four areas are managed in accordance with the Wilderness Act of 1964. They were given this high level of protection because they exhibit very few imprints of man and contain outstanding opportunities for solitude and primitive recreation.

The Wilderness Act of 1964 provides for the establishment of a National Wilderness Preservation System with areas to be designated from public lands with National Forests, National Parks, and National Wildlife Refuges. Public lands administered by BLM are inventoried and evaluated for wilderness potential in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA). In the CDCA, 137 areas covering 5.7 million acres were determined to have wilderness characteristics; these areas were designated Wilderness Study Areas (WSAs) in May 1978.

Following the identification of WSAs, consideration was given to all resource values and opportunities, and a determination of “highest and best use(s)” for each WSA was made. This analysis led to preliminary recommendations for each WSA as suitable or non-suitable for wilderness designation by Congress. Subsequent amendments to the CDCA Plan revised the suitability determinations for certain WSAs, or portions thereof.

The CDCA Plan, as amended, established goals for wilderness management (Amendment Six, January 15, 1987):

1. Until Congressional release or designation as wilderness, provide protection of wilderness values so that those values are not degraded so far as to significantly constrain the recommendation with respect to an area's suitability or non-suitability for preservation as wilderness.
2. Provide a wilderness system possessing a variety of opportunities for primitive and unconfined types of recreation, involving a diversity of ecosystems and landforms, geographically distributed throughout the Desert.
3. Manage a wilderness system in an unimpaired state, preserving wilderness values and primitive recreation opportunities, while providing for acceptable use.

California Desert Protection Act (Public Law 103-433). On October 31, 1994, Congress enacted the California Desert Protection Act (CDPA; Public Law 103-433), thereby designating certain lands in the California desert as wilderness in furtherance of the purposes of the Wilderness Act and Sections 601 and 603 of FLPMA. Of the 69 areas designated as BLM wilderness through the CDPA, four occur within the Coachella Valley Planning Area (Figure 3-1):

Table 3-3: Wilderness Areas
within Coachella Valley Planning Area

WILDERNESS AREA	TOTAL ACRES	BLM ACRES
Mecca Hills	30363	25949
Orocopia Mountains	54683	43275
San Gorgonio Additions	54672	36632
Santa Rosa Additions	91757	54695
TOTAL	231475	160551

The following provisions under Title 1, Sections 103 and 104 of the CDPA are particularly relevant to the Coachella Valley Plan:

- ▶ Subject to valid existing rights, each wilderness area shall be administered in accordance with the provisions of the Wilderness Act.
- ▶ Within wilderness areas, the grazing of livestock, where established prior to the date of enactment of the CDPA, shall be permitted to continue subject to such reasonable regulations, policies, and practices as deemed necessary, as long as such regulations, policies, and practices fully conform with and implement the intent of Congress regarding grazing in such areas as such intent is expressed in the Wilderness Act and section 101(f) of Public Law 101-628.
- ▶ The Congress does not intend for the designation of wilderness areas to lead to the creation of protective perimeters or buffer zones around any wilderness area. The fact that non-wilderness activities or uses can be seen or heard from areas within a wilderness area shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area.
- ▶ As provided in section 4(d)(7) of the Wilderness Act, nothing in the CDPA shall be construed as affecting the jurisdiction of the State of California with respect to wildlife and fish on public lands.
- ▶ Management activities to maintain or restore fish and wildlife populations and the habitats to support such populations may be carried out within wilderness areas and shall include the use of motorized vehicles by the appropriate State agencies.
- ▶ Nothing in the CDPA may be construed to preclude Federal, State, and local law enforcement agencies from conducting law enforcement operations as permitted before the date of enactment of the CDPA, including the use of motorized vehicles and aircraft, on any lands designated as wilderness.
- ▶ All lands not designated wilderness in the Coachella Valley Planning Area are no longer subject to the requirements of section 603(c) of FLPMA pertaining to the management of WSAs.

Wildlife Water Developments in Wilderness. BLM Manual 8560 (04-27-83), Management of Designated Wilderness Areas, states the following:

Although construction of facilities to enhance an area's value for wildlife or fish is not generally consistent with the free operation of natural processes, there are situations where such measures may be necessary for the continued existence or welfare of wildlife or fish living in wilderness. This is particularly true in the case of species adversely affected through human activities in and around such areas. Certain permanent installations to maintain conditions for wildlife and fish, upon consideration of their design, placement, duration, and use, may be permitted if the resulting change

is compatible with preserving wilderness character and is consistent with wilderness management objectives for the area, and if the installations are the minimum necessary to accomplish the task. Permissible actions under these criteria may include: installations to protect sources of water on which native wildlife depend, such as exclosures; and water sources such as springs, wells, and guzzlers.

Upon development of site-specific project plans for new artificial waters in wilderness, separate environmental review, including "minimum tool analysis" which specifies the manner in which projects are to be completed, will be necessary. Guidelines furnished in BLM Handbook H-8560-1 (07-27-88), Management of Designated Wilderness Areas, include building new wildlife management structures in a manner that minimizes visual impacts on the landscape.

Reintroduction of Native Species in Wilderness. In accordance with BLM Manual 8560, reintroduction of native species may be allowed:

In some instances, wildlife species once native to the wilderness have been forced from their original habitat by encroachment of human beings and human activities. To the extent that these factors can be altered or managed within the intent of the Wilderness Act, native species no longer established in the wilderness area may be reintroduced and managed as a part of the wilderness resource. Care must be exercised to be certain that the species is native. Such programs are addressed in the wilderness management plan.

Guidelines furnished in BLM Handbook H-8560-1 indicate that motorized methods and temporary holding and handling facilities may be permitted if they are the minimum necessary to accomplish an approved transplant.

Research in Wilderness. Title 43 CFR 6302.16 states that gathering information about natural resources in wilderness, where methods may include motorized equipment and/or more than minimal surface disturbance, may only occur if:

- ▶ Similar research opportunities are not available outside wilderness.
- ▶ The activity is carried out in a manner compatible with the preservation of the wilderness environment and conforming to the applicable management plan.
- ▶ Any ground disturbance or removal of material is the minimum necessary for the scientific purposes of the research.
- ▶ BLM has authorized the activity.
- ▶ All areas of disturbance are reclaimed; a bond for reclamation may be required.

This provision is reiterated in BLM Manual 8560. The Manual further provides for research and scientific activities that use wilderness areas for study of natural environments and ecosystems. It requires that such research and collection of information be conducted in an unobtrusive manner by methods compatible with the preservation of the area's wilderness character. Research and other studies must be conducted without use of motorized equipment or construction of temporary or permanent structures, except when approved by the State Director for projects that are essential to managing the specific wilderness when no other feasible alternatives exist. Such use, when approved, must be the minimum necessary and must not degrade the area's wilderness character. Relative to structures and facilities proposed by other agencies conducting activities within BLM wilderness, such agencies are equally constrained by provisions of the Wilderness Act that are applicable to BLM.

The CDCA Plan (1980), as amended, requires approval of the authorized officer for research activities conducted on BLM lands, including those within designated wilderness. Whenever required, all permits, authorizations, and/or licenses will be issued at the discretion of the authorized officer.

Wildlife Management Activities. On September 24, 1997, the BLM and California Department of Fish and Game (CDFG) entered into a Memorandum of Understanding to establish a framework for cooperation and procedures for CDFG maintenance, management, and research activities in BLM wilderness where motorized vehicle and equipment use is involved. Section 103(f) of the CDPA states:

Management activities to maintain or restore fish and wildlife populations and the habitats to support such populations may be carried out within wilderness areas designated by this title and shall include the use of motorized vehicles by the appropriate State agencies.

Through the Memorandum of Understanding, both agencies agree to protect and preserve the wilderness character and values of the areas while carrying out CDFG's wildlife management mission.

3.1.5 Farmlands

Although farming does occur extensively in the southern portion of the Coachella Valley planning area, these farms are all located on private lands, and not on BLM-managed public lands.

3.1.6 Livestock Grazing

Background. Livestock grazing has occurred in the Coachella Valley planning area for many decades. In general, cattle grazing use has declined since World War II (BLM, 1980), and grazing use within the Planning Area has declined since allocations for livestock use were made in the *California Desert Conservation Area Plan*, 1980. After enactment of the Taylor Grazing Act of 1934, “open” range grazing use became restricted to geographical areas allotted to one or more livestock producers based on historical or current grazing use. Until publication of a grazing rule on December 7, 1968, the BLM allocated long-term grazing use based on perennial forage production. However, there were many areas of the Southwest, including the Planning Area, that did not produce perennial forage and grazing use was based on consumption of annual grasses and forbs or ephemeral production. This new rule authorized BLM field offices in Arizona, California, and Nevada to modify ill-suited perennial classified allotments from perennial designation to ephemeral or ephemeral/perennial designation.

This administrative modification drastically changed the way livestock producers requested authorization of grazing use on ephemeral rangelands. The change no longer required an annual application for perennial forage grazing use nor required substantial use of base property (privately controlled non-BLM grazing lands), and grazing use would be based on a reasonable potential for growth of annual plants. Those allotments with perennial forage have an established amount of annual grazing use, based on the quality of the perennial plants, stated in animal unit months (AUMs) for a defined period of grazing use. Perennial grazing use is typically authorized at the same level from year to year unless forage production does not meet seasonal norms. However, grazing use in allotments with ephemeral forage do not have an established level of use nor a period of use instead of the amount of AUMs and the length of the grazing season are determined prior to authorized grazing use.

Typical ephemeral use on a perennial/ephemeral allotment requires two circumstances to be present before ephemeral grazing use occurs. First, sufficient forage of annual grasses and forbs must be available, and secondly, the lessee must have livestock for turnout. Surprising as it may seem, these two conditions do not easily coincide because livestock producers during any year may have abundant numbers of livestock to graze forage on the allotment, but there could be insufficient feed and vice-versa. When weather conditions have been favorable and the livestock producer submits a written request for grazing use, the BLM reviews plant and soil conditions throughout the allotment in preparation for potential grazing use. This field review will determine the amount of forage available, potential grazing areas, and potential restrictions of grazing use.

Whitewater Canyon Allotment. The 65,911 acres Whitewater Canyon Allotment, created by the CDCA plan in 1980, is the only BLM grazing allotment in the planning area. The Whitewater Canyon allotment is located in the area north of Interstate 10 and west and north of State Highway 62 in the San Bernardino Mountains, approximately 15 miles northwest of Palm Springs. Elevations vary between 2500 and 6500 feet, providing both low elevation winter range and high elevation summer range. The total available Federal range within the allotment boundaries is 38,936 acres. The allotment also encompasses 26,975 acres of non-Federal lands that are heavily intermixed with the public lands within the allotment, particularly within that portion in San Bernardino County.

The allotment has a year-long season of use on perennial forage with additional grazing capacity on ephemeral forage when it is seasonally available above a pre-determined threshold of 200 pounds (dry weight) per acre. The allotment is divided into 11 pastures that are grazed at different times of the year depending on elevation. The perennial grazing capacity of 990 AUMs allows the permittee to graze up to 119 head of cattle year-long. Additional capacity is

available when ephemeral forage exceeds 200 pounds dry weight per acre. Since 1980, no lessee has utilized the ephemeral component of this allotment. Water is available in each pasture with the exception of the Devil's Garden area in the southern portion of the allotment where water is hauled in. The allotment contains a number of range improvements, including wells, improved springs, fences and corrals.

BLM's grazing season starts March 1 and concludes the last day of February of the following year. All grazing activities are to be carried out in conformance with the grazing regulations, standards for rangeland health, guidelines for grazing management, the allotment management plan, and direction provided in the CDCA Plan. Current grazing activities are further constrained by mitigation measures listed for desert tortoise and their habitat in a programmatic biological opinions for cattle grazing completed in 1994 and 1997. No portion of the Whitewater Canyon allotment is within designated critical habitat for the desert tortoise.

Grazing Activities. The area encompassed by the Whitewater allotment has been grazed by cattle since the 1870's. In 1986, Tom Humpreville and Terry Anderson acquired the lease and ran a cow-calf operation as the O-Bar-O Cattle Company. In 1998, The Wildlands Conservancy (TWC) acquired the lease, and O-Bar-O continued to graze the allotment under TWC's lease until June, 1999. In June of 1999, the last cattle were removed. There are currently no livestock on the allotment. The Wildlands Conservancy (TWC) is still the current permittee. The following table summarizes the history of this allotment from 1989 to the present:

Table 3-4: History of the Whitewater Canyon Allotment

Year	# Livestock	Season	AUMs
1989	119	3/1-2/28	985
1990	119	3/1-2/28	985
1991	119	3/1-2/28	985
1992	119	3/1-2/28	985
1993	119	3/1-2/28	985
1994	119	3/1-2/28	985
1995	50	3/1-8/4	173
1995	59	8/5-2/28	285
1996	59	3/1-2/28	489
1997	30	3/1-2/28	124
1998	50	3/1-3/31	35
1998	30	4/1-5/31	41
1998	15	6/1-6/30	10
1998	10	7/1-2/29	55
1999	10	3/1-6/30	28
1999	0	7/1-Present	0

Despite the checkerboard land ownership pattern north of the Riverside-San Bernardino county line, the previous permittees were able to work with private landowners to facilitate physical access and livestock grazing privileges on private lands necessary to make use of much of the Federal range and livestock handling facilities that are “landlocked” by surrounding private lands. Between 1986 and 1999, loose partnerships and various agreements were made between private landowners within and adjacent to the allotment and the permittee to facilitate the physical and livestock access necessary to fully utilize the allotment.

After the Wildlands Conservancy acquired the grazing permit and became a key landowner in the area, the direction of private land management (both individual and non-profit group) and the aforementioned partnerships has changed, such that many of the sometimes hard won access agreements no longer exist. Landowners holding major land holdings within the allotment have changed their private management strategies in a manner that could be in conflict with grazing use on intermingled public lands. The landowners that control access to key portions of the allotment also may refuse access to The Wildlands Conservancy or other permittees. Access to the allotment is necessary to maintain range improvements, turn out or gather livestock, move livestock between pastures, or other access to gain full and proper use of the allotment.

Most of this situation exists in San Bernardino County, where a “free range” ordinance exists. This ordinance places the responsibility of exclusion of cattle from private lands on the landowners themselves. In essence, this means two things: 1) to exclude cattle from checkerboarded private lands, landowners will be responsible for fencing many miles of mountainous terrain, and 2) if this is done, major portions of the northern portion of the allotment, including some water sources and livestock handling facilities, will be inaccessible. Also, there is no dedicated public access across private lands to key portions of the allotment. These are Big Morongo Canyon, Mission Creek, and Whitewater Canyon at the trout hatchery. Given past indications from landowners controlling these three important access points, it is likely that future physical access for livestock operators would not be granted.

Grazing Administration. The BLM conducts a series of actions to authorize livestock grazing use. Depending on the type of lease, livestock producers apply to graze livestock annually or as conditions permit. Grazing use is permitted with written authorization, and terms and conditions for grazing use are listed as necessary. The BLM conducts field visits throughout the grazing period to ensure grazing use is occurring as authorized. Range improvements are inspected as prescribed to determine condition and future utility.

In 1999, the BLM conducted Rangeland Health Assessments on the Whitewater Canyon allotment and found areas not meeting the National Fallback Standards for soil permeability, riparian health, and stream morphology. Riparian/wetland vegetation along the Whitewater River did not meet standards due to an infestation of tamarisk. It is anticipated that initiation of a tamarisk removal program coupled with the exclusion of livestock from the area would quickly improve vegetative conditions. Upland soil permeability standards south of Gold Canyon, in the southern end of the allotment, also failed to achieve standards due to fragmented cryptogammic soil crusts. This area, along with the rest of the allotment, has not had any authorized grazing use since 1999, and it is anticipated that further rest will continue to facilitate recovery of damaged soil crusts. Otherwise, the remainder of the allotment is meeting all standards. California BLM has made a concerted effort to categorize allotments into four areas based on successful attainment of rangeland health standards. This categorization process coupled with an existing categorization (Selective Management) strategy of allotments based on their potential to improve resource conditions with less funding.

In 2001, critical habitat was designated within the allotment for the arroyo toad. Desert tortoise, least Bell's vireo, southwestern willow flycatcher, and triple-ribbed milkvetch are other federally listed species found on the allotment. Further, in 2000, the Center for Biological Diversity, et. al. (Center) filed for injunctive relief for failure to consult with the U.S. Fish & Wildlife Service (FWS) on the effects of implementation of the CDCA Plan to threatened and endangered species. As part of BLM's settlement agreement with the Center, signed in 2001, livestock grazing on the Whitewater Canyon allotment is prohibited pending the issuance of a biological opinion for the effects of livestock grazing under the CDCA Plan, or until January 31, 2002, whichever is later. Given the changes in management practices on intermingled private lands within the allotment, resource concerns stemming from Rangeland Health Assessments, and the presence of threatened and endangered species and resultant litigation, the management of livestock grazing on this allotment needs to be re-evaluated.

3.1.7 Wild Horse and Burro Herd Management Areas

Management of wild free-roaming horses and burros was authorized by Congress under the Act of December 15, 1971 (PL 92-195) 16 U.S.C. 1331-1340 (Act) as amended by The Federal Land Policy and Management Act of 1976 (PL 94-579) and The Public Rangelands Improvement Act of 1978 (PL 95-514). The regulations found at 43 CFR Part 4700 and the 4700 BLM Manual series prescribe the authorities, objectives, and policies that guide the protection, management, control, and disposition of wild free-roaming horses and burros in accordance with the Act. Through the Act, Congress declared that "It is the policy of Congress that wild free-roaming horses and burros shall be protected from capture, branding, harassment, or death; and to accomplish this they are to be considered in the area where presently found, as an integral part of the natural system of the public lands" and are to be managed "in a thriving natural ecological balance". The policy of the BLM is to manage wild horses and burros in a manner that will insure healthy herds for future generations of Americans and contribute to the diversity of life forms on public lands administered by the BLM. The Act does not apply to lands managed by the Department of Defense or the National Park Service (although such management is not prohibited on those lands). The areas where wild horses and burros were known to exist at the time of the passage of the Wild Horse and Burro Act in the California Desert District are addressed in the CDCA Plan (1980, as amended; see Wild Horse and Burro Management Area, Map No. 8). To the extent that wild horses and burros roam outside an HMA they are considered a nuisance and can be removed from the non-HMA area. It is the policy of BLM to manage and remove excess and nuisance animals through humane, live-capture means and place them in private maintenance through BLM's Adopt-a-Horse/Burro program. A discussion of these Herd Management Areas follows.

Palm Canyon. The Palm Canyon HMA, created in 1980 under the CDCA Plan, encompasses 11,500 acres and is located immediately south of the City of Palm Springs. Land ownership within this HMA is 21% BLM, 26% Agua Caliente Band of Cahuilla Indians tribal lands (ACBCI), 14% San Bernardino National Forest, and 39% private. The CDCA Plan originally set the herd management level at 6 horses, which was the size of the herd existing in 1980. In 1994, there were 2 horses remaining of the original 6. It was thought that these animals would live out their lives and then the HML would be set to 0. In 1997, 4 horses adopted through BLM's Adopt-a-Horse/Burro program were released into the HMA. This release was not authorized by BLM or the Agua Caliente Band of Cahuilla Indians. These horses are identified by freeze brands and are not considered "wild" under the Act. As of August, 2000, 8 horses were present on the HMA. This herd consists of:

- ▶ Four branded animals: one stallion and three mares;
- ▶ Three unbranded offspring: one yearling mare, one foal and one stud;
- ▶ One unbranded mare (the last descendent of the original herd of 6).

Field reconnaissance has shown that these animals are using Agua Caliente Band of Cahuilla Indians tribal lands about 90% of the time. These lands contain the only perennial water source, Dos Palmas spring, and adequate forage. The remaining 10% of the use is on public lands. These horses have created conflicts with equestrian trail users. The stallion has been aggressive towards trail riders, resulting in at least one thrown rider. The Tribe has closed trails that it manages in Palm Canyon to equestrians. There are potential habitat conflicts with the peninsular ranges bighorn sheep. There also may be sentiments within the Agua Caliente Tribal membership to maintain these animals, at least on Tribal lands. The BLM would like to work closely with the Agua Caliente Band of Cahuilla Indians to determine the future of the Indian Canyons horses and the Palm Canyon Herd Management Area. If these animals were to be removed, only the 4 branded animals would be removed as nuisance animals and the remaining would fall under the Act.

Morongo. The Morongo HMA is located approximately 15 miles northwest of the City of Palm Springs. Much of this HMA is within what is now the San Gorgonio Wilderness. This 39,100 acre HMA is composed of 65% BLM lands and 35% private lands. In 1980, the HML for this area was set at 16 burros in the CDCA Plan, with an excess of 9 burros. A 1985 CDCA Plan amendment changed the HML to 0. Subsequent to that amendment, records indicate that burro numbers fluctuated greatly, reaching as many as 50 burros in 1987 to 0 in 1993. There are currently no burros within this HMA and there are no known sources of new burro populations that may migrate into the area.

Coyote Canyon. The Coyote Canyon Herd Management Area (HMA) was deleted from the CDCA Plan through a 1998 plan amendment conducted out of the Palm Springs-South Coast Field Office. This former HMA was located in the northwest portion of what is now the Anza-Borrego State Park just north of the Riverside-San Diego county line. When the HMA was created by the CDCA Plan in 1980, it had a HML of 20 horses. The subsequent history of this HMA is sketchy, but a 1985 CDCA Plan amendment set the HML to 0. In 1993, the BLM lands within the HMA were transferred to the State of California to become part of the state park system. This transfer of ownership had the effect of nullifying the HMA and its management under the Act. In 1995, the State removed remaining horses to protect riparian areas in Coyote Canyon. Any horses that may continue to exist within Coyote Canyon are now under the jurisdiction of the State of California.

3.2 Transportation, Traffic and Circulation

3.2.1 Coachella Valley Roadways

The Coachella Valley CDCA planning area encompasses a unique geography that influences and constraints, which have shaped the regional roadway network. The valley is a northwest-southeast trending basin, bounded by high mountains that impose significant physical restrictions on roadway planning and construction opportunities in the valley, and have contributed to the convergence of high traffic volumes onto a limited number of roadways.

Among the earliest “roads” passing through the Coachella Valley was an Indian trade route known as the Cocomaricopa Trail, later renamed the Bradshaw Trail, which was one of the most important desert trails in southern California during the 1860s and 1870s. The course of the trail was largely influenced by regional topography, and throughout much of the valley, the Bradshaw Trail closely followed the toe of slope of the Santa Rosa Mountains. It took advantage of mountain spurs, which project into the valley floor, and their ability to naturally shield travelers from strong winds and blowing sand and dust. The logical placement of the Bradshaw Trail led to the establishment of permanent settlements within the coves of the Santa Rosa Mountains during the early twentieth century. The “cove communities” were strategically located where buildings and residents could be shielded from the harsh desert environment. The Bradshaw Trail was eventually replaced by State Highway 111, which provides important connectivity between the cove communities.

The region is interconnected by state and interstate highways, most notably Interstate-10, the aforementioned Highway 111, Highway 74, Highway 62 and Highway 86. Local circulation is also facilitated through a web of arterial roadways built on a north-south/east-west grid pattern. In many locations, the region’s north-south/east-west trending land use patterns and roadway grid conflict with its northwest-southeast trending topography, and the combination of these has created an intra-regional transportation challenge. The following briefly describes major roadways, which pass through or near the CDCA planning area.

Many BLM parcels in the planning area are remote, undeveloped, and inaccessible to motor vehicles. Others are accessible for off-highway and recreational vehicle use, and are designated accordingly through BLM’s Motorized Vehicle Route Designation process (see Motorized-Vehicle Access), or are accessible only to authorized vehicles for specific activities (e.g. rights-of-way issued for development of communication sites or wind energy facilities).

However, a limited number of BLM parcels are crossed by major arterials, highways, and/or railroad corridors and provide for the continuous transport of persons and goods. These transportation facilities have easements which allow them to cross BLM land. Nonetheless, as described below, some issues pertaining to rights-of-way on public land are unresolved. Descriptions of the primary linkages that pass directly through BLM parcels in the CDCA planning area follow.

Interstate-10. The Coachella Valley is bisected by Interstate-10, which connects the valley with the Los Angeles, Riverside, and San Bernardino metropolitan areas to the west and the Phoenix region to the east. I-10 is a critical component of the regional road network and provides intra-regional and inter-city access within the valley. It consists of a divided freeway accessed from diamond-shaped interchanges spaced a minimum of one mile apart.

Interstate-10 lies along the geographic center and northwest-southeast axis of the Coachella Valley. It occurs within the valley’s central drainage area and lies parallel to the prevailing winds emanating from the San Gorgonio Pass. With the exception of the

Thousand Palms community, land adjacent to I-10 remains largely undeveloped due to the presence of high winds and blowing sand and the potential for flooding.

Within the CDCA planning area, I-10 makes limited passage through BLM CDCA lands, including lands at Whitewater Hill near the San Gorgonio Pass, lands east of Palm Drive and southwest of the BLM's Willow Hole ACEC, and portions of the checkerboard BLM ownership pattern located north and northwest of the Mecca Hills Wilderness.

State Highway 111. State Highway 111 is essentially an intra-valley roadway, which connects the valley with communities of the Imperial Valley to the southeast. In the vicinity of its westerly terminus at I-10 in the San Gorgonio Pass, Highway 111 passes through BLM lands located at Windy Point and Desert Angel. Highway 111 does not cross BLM lands again until just southwest of the Dos Palmas ACEC, and then through the checkerboard BLM ownership pattern approximately six miles southeast of Dos Palmas.

State Highway 62. State Highway 62, a north-south trending four-lane divided highway, passes through the northwesterly portion of the Coachella Valley. It extends north from I-10, just east of the San Gorgonio Pass, to communities in the Morongo Basin and high desert in San Bernardino County. Only a very small sliver of BLM land is co-terminus with I-10/ Highway 62 on/off ramps just east of Whitewater Hill.

State Highway 74. State Highway 74 connects the Coachella Valley with communities in southwestern Riverside County and northern San Diego County. It extends south from State Highway 111 in the City of Palm Desert, into the rocky terrain of the Santa Rosa Wilderness, through lands recently designated as critical habitat for the Peninsular bighorn sheep by the U.S. Fish and Wildlife Service. It proceeds west, then northwest, into the San Bernardino National Forest, to the mountain community of Mountain Center and the Hemet Valley. BLM lands within the CDCA planning area crossed or bordered by Highway 74 include holdings in Dead Indian, Grapevine and Carrizo Canyons, extending from the toe of the mountain and into elevated terrain.

Ramon Road. Ramon Road has serves as an arterial connector for local traffic from Palm Springs to Washington Street just east of the Coachella Valley Preserve. This road is bordered by BLM lands in the vicinity of Thousand palms Canyon Road.

Dillon Road. Dillon Road is a two-lane, northeast-southwest trending arterial that crosses the northern portion of the Coachella Valley. It extends from the Indio/Coachella city boundary at State Route 86, passes under Interstate-10, and continues northwest through the valley. It passes on the north side of the Indio Hills, through the Sky Valley community, to State Highway 62 in the southern portion of Desert Hot Springs. Its passage through or adjacent to BLM lands is limited to holdings in the vicinity of East Wide Canyon, scattered BLM lands in Sky Valley, and one section (Section 30) located about three miles north of the Coachella Branch of the All American Canal.

Varner Road. Varner Road is a two-lane arterial, which runs just north of and generally parallel to Interstate-10. It extends from Palm Drive on the west to the I-10/Jefferson Street interchange near Bermuda Dunes on the east. Segments of Varner Road follow the route of the historic Ocean-to-Ocean Highway, a link of the transcontinental highway. Although exact dates are unclear, archival sources trace the construction of the Ocean-to-Ocean Highway to the late 1930s. It primarily served as a route for crossing through the valley, rather than one that accommodated intra-valley travel.

Although Varner Road provides important local access, its functionality west of Thousand Palms is limited. Most lands north of Varner Road in this vicinity are undeveloped lands in the Indio Hills, which are subject to high winds, blowsand, and flash flooding, and have limited potential for future development. East of Thousand Palms, the utility of Varner Road is limited to its role as a frontage road adjacent to I-10. Important BLM lands within the Willow Hole ACEC are traversed by Varner Road in the vicinity of Edom Hill. No other BLM lands are impacted by this roadway.

Indian Avenue/Indian Canyon Drive. Indian Avenue/Indian Canyon Drive extends north from south Palm Springs, to the Little San Bernardino Mountains northwest of Desert Hot Springs. This major arterial connects traffic from Interstate-10 with the City of Palm Springs to the south, and Desert Hot Springs and Highway 62 to the north. South of Interstate-10, it crosses a broad 100-year floodplain, which is associated with the Whitewater River and is up to two miles wide in some locations. It is at this location that Indian Avenue runs along the eastern boundary of BLM lands, portions of which have been leased for wind energy development.

Thousand Palms Canyon Road. Although not considered a major regional arterial, Thousand Palms Canyon Road is an important two-lane roadway that provides the only north-south connection through the Indio Hills. It is located approximately two miles east of the community of Thousand Palms, and extends from Ramon Road on the south, to Dillon Road on the north. It passes through portions of four BLM sections, which are part of the Coachella Valley Preserve and the sensitive biological habitat contained therein.

Rail Service. Freight and passenger rail services are offered along the Union Pacific Railroad, which was built in second half of the nineteenth century. The railroad originally was part of the transcontinental railroad, which connected the Pacific coast with Yuma, Arizona. It enters the Coachella Valley from the west through the San Geronio Pass and proceeds east, parallel to Interstate-10. In the City of Indio, it turns southeast and continues along the east side of the Salton Sea. Union Pacific rail lines pass through several BLM holdings within the CDCA planning area, including lands at Windy Point, lands immediately west of Garnet Hill, and lands southwest of the Willow Hole ACEC. The railroad right-of-way does not cross BLM lands again until just southwest of the Dos Palmas ACEC, and then through the checkerboard BLM ownership pattern approximately six miles southeast of Dos Palmas.

3.2.2 R.S. 2477 and Rights-of-Way Issues

Revised Statute 2477 (R.S. 2477) was passed by Congress as Section 8 of the Mining Act of 1866, which established the first system for patenting lode-mining claims and provided for access. R.S. 2477 stated “the right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted.” It was repealed when the Federal Land Policy and Management Act (FLPMA) was enacted on October 21, 1976. However, FLPMA did not terminate any existing “rights-of-way” granted under R.S. 2477.

There are often questions about what was offered under R.S. 2477, to whom, and how the rights-of-way were to be perfected. These questions have not been answered in a clear and consistent manner either locally or nationally. Many routes across public land came into existence with no documentation of the public land records. Routes across public land constructed after 1866, but before withdrawal, patent, mining claim, or reservation for a specific purpose, and before the passage of FLPMA may be R.S. 2477 rights-of-way.

In an attempt to clear up these ambiguities, Congress directed the Department of the Interior to study the history, impacts, status, and alternatives to R.S. 2477 rights-of-way and to make recommendations for processing claims (assertions). This process began in November 1992. Public meetings were held to assist in preparing a report that was submitted to Congress in May 1993. The report stated that, until completion of the report, the Department "...deferred processing pending claims unless there is an immediate and compelling need to recognize or deny any claims."

The BLM was directed to prepare regulations to guide the process of reviewing R.S. 2477 claims. Draft regulations were published in 1994. Three terms are important in determining which roads are R.S. 2477 rights-of-way: (1) "construction," (2) "highways," and (3) "not reserved for public uses." The terms "construction" and "highways" are the most controversial provisions of R.S. 2477 and the regulations. On November 19, 1995, Congress approved a moratorium on the regulations. Because there are no final regulations that provide criteria for processing claims under R.S. 2477, the policy of deferring the processing of claims unless there is a compelling need remains in place.

The route network identified under the Preferred Alternative was developed through a route designation process that considered resource management issues and regulatory and statutory closures (such as in designated wilderness). This process did not make any determinations under R.S. 2477. If a route were proposed for designation as "closed," such a designation would not constitute a determination that an R.S. 2477 right-of-way does not exist. Such closure does not extinguish any R.S. 2477 right-of-way that may exist. Conversely, a route designated as "open" does not mean that the route was determined to be an R.S. 2477 right-of-way.

3.3 Soils, Geology, Mineral and Energy Resources

3.3.1 Soils and Geology

The Coachella Valley is located in the northwestern portion of a broad, tectonic depression known as the Salton Trough, which is approximately 130 miles long and 70 miles wide and extends from the Gulf of California to the San Geronio Pass. The Salton Trough is actually the northern portion of the Gulf of California, a rift basin formed by oblique strike-slip motion between the North American and Pacific tectonic plates. Given its geologic position, the Coachella Valley region is highly susceptible to seismically-induced and other geologic hazards.

Regional Soils and Surficial Rocks. The valley includes a diverse range of rocks and sediments, which were formed or deposited over millions of years. The oldest rock formations are basement rocks, which compose the mountain ranges bordering the valley. Mountains of the Peninsular Range geologic province, including the San Jacinto and Santa Rosa Mountains, are composed of fairly old (Mesozoic) granitic rock, which has intruded even older metasedimentary rock of Mesozoic and Paleozoic age.¹ Mountains of the Transverse Range province, including the San Bernardino, Little San Bernardino and Orocopia Mountains, consist of a pre-Cenozoic crystalline basement complex, which is primarily composed of batholithic granite that has intruded numerous pendants of metamorphic rock.²

Over millions of years, the Salton Trough has been filled with sedimentary deposits up to 20,000 feet thick. Various sedimentary layers, or formations, are exposed throughout the Coachella Valley, particularly in the Indio and Mecca Hills and near Whitewater Canyon. The oldest sedimentary formation, known as Coachella Conglomerate, is composed of debris-flow and stream-laid deposits of gneiss, granite, and volcanic rock.³ The Imperial Formation, which is probably of early Pleistocene age, was deposited when the Gulf of California extended into the northern reaches of the Coachella Valley and contains marine fossils in its sandstone layer. Ocotillo Formation, which is extensively exposed in the Indio and Mecca Hills, is largely composed of cobble, gravel, and sand containing granite and metamorphic units.

The most recently laid sediments in the region are alluvial (stream-deposited) and eolian (wind-deposited) sediments. Alluvial sediments typically consist of gravel, sand, and clay deposited by mountain streams and found within alluvial fans and the lower reaches of mountain canyons. In the vicinity of the Salton Sea, they consist of fine clay that is probably lacustrine (lake) in origin. Eolian deposits are silty sand and fine and medium-grained sand fractions that are transported by strong, sustained winds emanating from the San Geronio Pass.

Seismic Activity in the Planning Area. Given its location within the Salton Trough, the Coachella Valley is highly susceptible to seismic activity and seismically-induced geologic hazards. The San Andreas Fault, which accommodates the majority of movement between the Pacific and North American plates, passes directly through the Coachella Valley. The San Bernardino Mountains segment of the San Andreas Fault extends from the Cajon Pass area, east-southeast to its terminus at the northwestern city limits of Desert Hot Springs. Its strike slip rate is estimated at 22 mm/year \pm 5 mm/year, and the most recent surface-rupturing

1 "Emerging Perspectives of the Salton Trough Region with an Emphasis on Extensional Faulting and its Implications for Later San Andreas Deformation," Eric G. Frost, Steve C. Suitt, Mitra Fattahipour.

2 "Geology of the Southeastern San Andreas Fault Zone in the Coachella Valley Area, Southern California," Thomas W. Dibblee, Jr.

3 Ibid.

earthquake on this segment is believed to have occurred in 1812.⁴ The Coachella Valley segment of the San Andreas Fault crosses through the northern portion of the valley. It is creeping at a rate of about 2 to 4 mm/year, with a long-term slip rate of about 25 mm/year \pm 5 mm/year.⁵

The Coachella Valley segment consists of two distinct strands: 1) the Mission Creek Fault (also known as the North Branch or San Andreas Fault strand), and 2) the Banning Fault (also known as the South Branch fault). These strands run roughly parallel to one another in the northern portion of the valley, but converge into a single strand in the southeastern Indio Hills. They continue southeast as the Indio segment, to the northeast side of the Salton Sea. These faults are believed to be capable of generating magnitude 7.1 and 7.4 earthquakes, respectively.⁶ The Banning Fault is believed to have been the source of the 1986 North Palm Springs earthquake (magnitude 5.9), which resulted in extensive ground fracturing between Whitewater Canyon and State Highway 62.

Several other faults of relatively short length have been documented throughout the valley. The Garnet Hill Fault extends roughly from Whitewater Canyon to the vicinity of Edom Hill, although it is mapped as an inferred and concealed fault as it approaches Edom Hill. Others in the vicinity of Desert Hot Springs include the Devers Hill Fault, White House Canyon Fault, Blind Canyon Fault, and Long Canyon Fault. The Blue Cut Fault is located at the northeastern extreme of the Coachella Valley, along the northern flank of the Eagle Mountains. The Mecca Hills have been significantly uplifted and folded by seismic activity along the San Andreas and other faults in the vicinity, including the Painted Canyon, northern Painted Canyon, Eagle Canyon, and Grotto/Hidden Spring faults.

The Pinto Mountain and Morongo Valley Faults pass directly through the Morongo Valley portion of the planning area. The Morongo Valley Fault is a left-lateral strike-slip fault with a length of 18 kilometers and a slip rate of less than 0.5 mm/year. Probable earthquake magnitudes this fault may generate range from magnitude 6.0 to 6.8. The Pinto Mountain Fault is traceable for approximately 47 miles, from its junction with the Mission Creek branch of the San Andreas Fault to just east of the City of Twentynine Palms. The Anza-Borrego portion of the planning area is traversed by several active strike-slip faults of the San Jacinto Fault Zone, including the northwest-striking Coyote Creek, Buck Ridge, and Clark faults.

Other major faults and fault zones are located outside the region, but have the potential to generate strong ground shaking and other seismic hazards within the valley. The San Jacinto Fault Zone lies along the western margin of the San Jacinto Mountains, approximately 10 to 15 miles southwest of the Coachella Valley. The Elsinore Fault Zone, located about 30 miles southwest of the Coachella Valley, is one of southern California's largest fault zones (over 140 miles in length) and is capable of generating magnitude 6.5 to 7.5 earthquakes. The Mojave Shear Zone (also known as the Eastern California Shear Zone), located in the southern Mojave Desert, north of the Coachella Valley, consists of several northwest-southeast trending faults that collectively appear to be accommodating between 9 and 23 percent of the movement between the North American and Pacific plates.⁷

Geologic Hazards. Given that the planning area is traversed by, or in close proximity to numerous active and potentially active faults, it is highly susceptible to seismically-induced and other geologic hazards. Strong ground shaking is undoubtedly the most significant seismic

⁴ "Technical Background Report to the Safety Element for the General Plan of Cathedral City," Earth Consultants International, Inc., June 1999.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

hazard facing the Coachella Valley. According to the USGS National Seismic Hazard Mapping system, the easterly portion of the valley, generally extending from Desert Hot Springs to the northeast Salton Sea, can be expected to experience “extremely high” peak horizontal accelerations of greater than 40% the force of gravity, with a 10% probability of being exceeded in 50 years. The zones to the immediate east and west are expected to experience “very high” peak horizontal ground accelerations between 30% and 40% the force of gravity, with a 10% probability of being exceeded in 50 years. The potential ground motions likely to occur in these zones are among the highest in southern California.

Seismic activity can induce other geologic hazards, including surface fault rupture, liquefaction, slope instability, and settlement of loose, recently deposited sediments, such as windblown sand and young alluvium. When liquefaction occurs, soils behave like a liquid or fluid-like substance and settle, resulting in structural damage or failure, lateral spreading, the buoyant rise of buried structures, and/or ground oscillation. The areas most prone to liquefaction include the desert floor in the eastern valley, generally east of La Quinta, and areas adjacent to faults which act as barriers to groundwater. The potential for landslides, rock falls, debris falls, and slumps to occur within and/or adjacent to the slopes of the mountains and hillsides in the planning area is moderate to high. Such hazards can be expected to occur where bedrock is intensely jointed or fractured, and where boulders are precariously perched on hillsides and slopes. Ridge top shattering may occur on the crests of Painted Hill, Edom Hill, and other steep, narrow ridges.

Other potential geologic hazards include hydroconsolidation, or soil collapse, which may affect the valley floor and alluvial fans, washes, and unlined drainage channels. Expansive soils, which contain significant amounts of clay particles and have the ability to give up (shrink) or take on (swell) water, typically occur within older alluvial fan deposits that emanate from mountainous slopes and within claystone layers of the Imperial Formation. Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement, which in the Coachella Valley, is primarily associated with long-term groundwater extraction. Subsidence is most likely to occur in the central and southeasterly portions of the Coachella Valley, which are underlain by numerous clay layers that separate water-producing zones, and at or near the valley margins. Much of the central valley floor is also susceptible to moderate to severe wind erosion, which results in the transport and re-deposition of dry, sandy, finely granulated soils. The movement of abrasive, sandy soils can pose a serious public health hazard, reduce visibility, damage buildings and vehicles, and contribute to nutrient losses in plants.

3.3.2 Mineral Resources

Mineral resources in the planning area are largely limited to aggregate (sand, gravel, and crushed stone), which is a major component of concrete, plaster, stucco, road base, and fill and is essential to the construction industry. Important deposits of these materials occur within the region and are actively being developed. Other mineral deposits occurring in the region include copper, limestone, specialty sands, and tungsten. These deposits are limited to rocky outcroppings within the Little San Bernardino and Santa Rosa Mountains and have not been mined.

In 1988, the California Department of Conservation Division of Mines and Geology (DMG) released a report identifying aggregate materials in the Palm Springs Production-Consumption Region. The region includes 629 square miles in the Coachella Valley, generally extending from Cabazon on the west to Mecca on the east. The study found that 3.2 billion tons of aggregate resources have been identified in the region. It assigned Mineral Resource Zone (MRZ) classifications to all lands within the region, which describe the location of significant PCC-grade aggregate deposits:

MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. Includes Quaternary alluvial deposits of the central upper Coachella Valley, the Imperial Formation of the Indio Hills, Garnet Hill, the hills west of Whitewater River Canyon, and the Borrego Formation of the southeastern Coachella Valley.

MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. Includes the following areas: 1) Whitewater River floodplain extending from the Whitewater River Trout Farm to the City of Palm Springs, 2) San Gorgonio River floodplain from Cabazon to its confluence with the Whitewater River, 3) the river channel in the lower part of Little Morongo Canyon, 4) a small alluvial wash north of Thousand Palms, 5) the confluent alluvial fans of Berdoo and West Berdoo Canyons, 6) the alluvial fan of Fargo Canyon, 7) an alluvial fan north of Indio, and 8) an alluvial wash and fan east of Thermal.

MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data. Includes lands composed of Cabezon Funglomerate, Ocotillo Conglomerate, Painted Hills Formation, Palm Springs Formation, Mecca Formation, and metamorphic rocks of the San Jacinto Mountains and the San Gorgonio Complex.

The 1980 CDCA Plan, as amended, permits the development of mineral resources on BLM-administered lands in a manner which satisfies national and local needs in an economically and environmentally sound manner. All mineral exploration and mining operations are subject to the Bureau's surface mining regulations under 43 CFR 3802 and 43 CFR 3809, which prohibit "undue degradation" of public lands. Currently, all BLM actions pertaining to realty and leasable minerals are considered on a case-by-case basis in accordance with the CDCA Plan (1980, as amended). Figure 2-7 identifies the location of existing BLM mineral leases in the planning area.

3.3.3 Energy Resources

The 1980 CDCA Plan, as amended, allows for the designation of utility corridor rights-of-way and the development of power plants and alternative energy sites on BLM lands.

Electrical Power. Southern California Edison (SCE) and the Imperial Irrigation District (IID) provide electric power services to the Coachella Valley. Both companies utilize a combination of hydroelectric, thermal, diesel, and geothermal power sources, most of which are located outside the valley. Electricity is distributed to the Coachella Valley via high-voltage (up to 500 kilovolts) transmission lines, which cross the valley along an east-west trending utility corridor north of Interstate-10. This corridor passes directly through or in close proximity to various parcels administered by BLM.

Natural Gas. Natural gas is found in association with petroleum crude oil deposits and is generally considered a clean and efficient fuel. The Southern California Gas Company provides natural gas services to much of the Coachella Valley. The fuel is transported from Texas to the Coachella Valley through three east-west trending gas lines, which cross the valley just north of Interstate-10 and continue west to Los Angeles. The pipelines include one 30-inch line and two 24-inch lines, with pressures of 2,000 pounds per square inch (psi). The pipeline utility corridor passes directly through or in close proximity to various parcels administered by BLM.

Wind Energy. The Coachella Valley's wind energy industry has proven to be an important renewable energy resource. According to the American Wind Energy Association, in January 2002, there were 19 different wind energy projects in the San Gorgonio Pass area, with a

combined installed power capacity of 421.1 megawatts. In 1998 (the last year for which data are available), they generated an annual energy output of 805 million kWh. Another five wind energy projects, with a combined power capacity of 163.5 megawatts, are proposed for construction during 2002.

BLM's CDCA Plan (1980, as amended) allows for the development of windfarms on BLM-administered public lands in an environmentally sound manner. Project review and approval is conducted on a case-by-case basis. Figure 2-7 identifies the location of existing wind energy parks on BLM lands in the planning area.

Solar Energy. Solar thermal systems are widely applied in the Coachella Valley for heating domestic water and swimming pools. However, such uses are largely limited to private lands.

Geothermal Energy. Geothermal resources are plentiful in the northwestern portion of the Coachella Valley. Geothermal hot springs in Desert Hot Springs are structurally controlled by faults and largely focused along the Mission Creek fault. The geothermal energy produced in Desert Hot Springs, which is primarily used for commercial spas and therapeutic pools, is harnessed on private land and does not affect lands administered by BLM.

3.4 Recreation

Among the Coachella Valley's most valuable assets are its unique and impressive scenic and ecological resources, which attract thousands of visitors each year. Much of the valley's recreational appeal is due to a combination of distinctive topography, temperate climate, desert wildlife and vegetation, and proximity to vast public parks and recreation lands. Following is a description of recreational opportunities on BLM lands in the CDCA planning area.

Trails. BLM maintains a developed trail system in the San Andreas Oasis portion of the Dos Palmas Preserve/ACEC, which is utilized by hikers, bird watchers, and other outdoor enthusiasts. The Big Morongo Canyon Preserve/ACEC also includes a developed trail system, which is frequented by hikers and bird watchers. Equestrian use is permitted on designated trails, including Canyon Trail, which is accessed from the southern portion of the ACEC, along Indian Avenue at the base of the Little San Bernardino Mountains.

BLM maintains a developed trailhead for the Pacific Crest National Scenic Trail at Cottonwood Canyon. Hiking and equestrian use is permitted on the trail, which extends from Mexico to Canada and passes through BLM's Whitewater Canyon ACEC and San Geronio Wilderness Additions.

BLM, in cooperation with California Department of Fish and Game, also maintains the trailhead to the Art Smith Trail, which is located near the Santa Rosa and San Jacinto Mountains National Monument Visitor Center on Highway 74, south of the City of Palm Desert. The trailhead provides access to Carrizo and Dead Indian Canyons and serves as an important connector to an extensive trails network that traverses the Santa Rosa Mountains. Trails in this network are open to hikers, mountain bikers, and equestrians, except for several narrow and steep trails in the Murray Hill area (Palm Springs) that are closed to mountain bike use to avoid conflicts with horses. Trails in Carrizo Canyon Ecological Reserve are temporarily closed to all use on a seasonal basis from January 1 to September 30 by California Department of Fish and Game.

Within essential Peninsular Ranges bighorn sheep habitat, there are 153 miles of primary trails; other unnamed trails exist but have not been identified. Since 1998, trail users have been requested to voluntarily refrain from using certain trails in bighorn sheep habitat from January 1 to June 30 to minimize disturbance to bighorn sheep during the lambing season, with additional trails being included in 2001. These are: (1) Art Smith Trail, (2) Bear Creek Canyon Trail, (3) Bear Creek Oasis Trail, (4) Dunn Road, (5) Cathedral Canyon Trail, (6) Clara Burgess Trail, (7) Boo Hoff Trail, (8) Morrow Trail, (9) Guadalupe Trail, and (10) North Lykken Trail, totaling 33 miles in length. A portion of Dunn Road on private lands is currently posted as "no trespassing," hence closed to use. Trail users are also requested to voluntarily refrain from using the Bear Creek Oasis Trail, Guadalupe Trail, and a portion of the Art Smith Trail from July 1 through September 30 to facilitate bighorn sheep access to water sources. The voluntary trail avoidance programs are temporary pending a decision regarding the trails management element of the Coachella Valley Multiple Species Habitat Conservation Plan.

BLM staff conducted a trail user survey from January through June 2001, and from January through April 2002 to evaluate trail use patterns on eight trails in the Santa Rosa Mountains: (1) Art Smith Trail, (2) Bear Creek Canyon Trail, (3) Lower Dunn Road, (4) Upper Dunn Road, (5) Cathedral Canyon Trail, (6) Clara Burgess Trail, (7) Boo Hoff Trail, and (8) Morrow Trail. A total of 4,421 trail users were identified during this time period. Hikers accounted for 87%, mountain bikers for 11%, and equestrians for 2% of all trail users. Of the eight trails monitored, the Art Smith Trail received the most overall usage (87%). The Art Smith Trail also received the most use by hikers (59% of all observed hiking use on the eight trails); however, the Lower Dunn Road received the most use from mountain bikers (60% of all observed mountain biking

use on the eight trails), and the Boo Hoff Trail received the most use from equestrians (63% of all observed equestrian use on the eight trails). A summary of trail use in the Santa Rosa Mountains is provided in Appendix E.

Camping. Primitive camping is permitted on all BLM land, except where expressly prohibited. Campers may occupy a single site for a maximum of 14 days, and then must move to a new location. Vehicle camping is permitted along open routes, but no more than 300 feet from the roadway, except in ACECs where the limit is 100 feet. No special permission or permits are required. BLM does not maintain any developed campsites within the Coachella Valley CDCA planning area. Current camping activity in the planning area is very low and incidental, except around Drop 31 where use occurs mostly on weekends and holidays. The following areas in the CDCA planning area are closed to camping: (1) Dos Palmas Preserve/ACEC, (2) Big Morongo Canyon Preserve/ACEC, and (3) Coachella Valley Thousand Palms Preserve (including the Willow Hole-Edom Hill ACEC).

Hunting. All hunting activity is regulated by the California Department of Fish and Game. Hunters must possess a valid hunting license and obey all laws and regulations pertaining to the use of firearms in California. Hunting is generally allowed on the BLM-managed public lands, except in developed recreation sites (43 CFR 8365.2-5). No hunting closures are proposed through this Coachella Valley CDCA Plan Amendment.

In collaboration with the State, Federal and local jurisdictions, hunting closures on BLM-managed lands may be proposed through the Coachella Valley Multiple Species Habitat Conservation Area Plan process for public safety and protection of listed species. Closure authority shall not be exercised without prior consultation with the State of California Department of Fish and Game (43 CFR 24.4 (i)(4).)

Rockhounding. Part 8365 of Title 43 CFR (Code of Federal Regulations) provides for the collecting of “reasonable” quantities of rocks, minerals, semiprecious gemstones, and invertebrate and plant fossils of non-scientific purpose for personal use. However, regulations do not permit collecting on “developed recreation sites and areas,” or where otherwise prohibited or posted. Informal discussions with local gem and mineral clubs indicate that the Coachella Valley is not known to contain significant gem and/or mineral resources. Therefore, rockhounding activity in the Valley is considered very low.

Off-Highway Vehicle Use. Off-highway vehicle (OHV) use is a popular recreational pastime in Southern California deserts. Four-wheel drive and OHV racing clubs utilize certain desert areas for group excursions, scrambles, competitions, and other organized events, though no competitive vehicular events on public lands in the Coachella Valley Planning Area have been authorized in many years. Individuals generally use back country routes for more casual exploration. One of the most popular desert OHV sites is Drop 31 located north of the Salton Sea.

BLM lands available for OHV use are designated as either “limited” or “open.” In “limited” areas, vehicles are required, at a minimum, to remain on existing routes of travel; cross-country travel is prohibited. In “open” areas, vehicle travel is permitted anywhere if the vehicle is operated responsibly in accordance with regulations and subject to permission of private land owners if applicable. OHV and other vehicle use is prohibited in all wilderness areas, except to accommodate specific authorized activities as provided for by law.

There are four locations on federally owned public lands in the Coachella Valley which have historically received off-highway vehicle use, some for as long as 40 years. The four areas cover about 3,800 acres and have become informally established by use rather than by design or designation. Descriptions of each of the four areas follow.

(1) A 680-acre area at Windy Point adjacent to Highway 111 is currently under a temporary closure to exclude OHV use from occupied habitat for Coachella Valley fringe-toed lizards and Coachella Valley milkvetch (both are species listed under the Endangered Species Act). About 100 to 150 people used the Windy Point area on busy weekends during the cooler times of the year prior to the temporary closure. Peak weekends have been as high as 300 to 400 visits. An OHV rental business is located on adjoining private lands; these lands have a small acreage suitable for OHV use.

Use in the area has been established for over 40 years. A large portion of the use of this area comes from Orange and Los Angeles Counties. With the temporary closure, use has been substantially reduced, but up to about eight people per week may enter the closed area, passing signs or barriers. Enforcement emphasis on Windy Point continues with 98 federal citations, 4 state law citations, and one written warning issued through May 13, 2002. However, given the population base (millions) in the Los Angeles and Orange County areas in combination with the long history of use, enforcement is not expected to yield full compliance for some time.

(2) A 1,040-acre OHV area consisting of two separate parcels in the Indio Hills generally receives 10 to 20 visits per week, mostly by local residents. The parcels are located adjacent to areas designated as part of the Coachella Valley Fringe-Toed Lizard Preserve, but topography largely confines the use to wash bottoms, ridges and a bowl area which are physically separated from Preserve lands. Much of the existing use occurs on an adjacent private parcels and the public land parcel north of the Edom Hill landfill.

(3) A 640-acre parcel in the Iron Door area receives heavy off-highway vehicle use. Adjacent private land parcels receive similar use. The area receives vehicle recreation by up to 150 people per week, mostly for off-highway vehicle play due to the sandy soils.

(4) A 1,440-acre area at Drop 31 along the Coachella Canal is used as an off-highway vehicle use and camping area, particularly on weekends and holidays when temperatures are relatively cool (October to May). Because the area is adjacent to the Orocopia Mountains Wilderness, there is some risk of vehicle intrusion into wilderness, but compliance along the wilderness boundary has generally been good. The land pattern in the area is checkerboard with intermingled private land ownership. The private lands receive similar recreation use. Use levels of 250 to 500 users are typical on busy holiday weekends. Use levels in the region around the Orocopia and Mecca Hills Wildernesses can reach as high as 2,000 to 3,000 people on busy weekends. Users include people traveling from other parts of southern California with expensive camping and touring equipment, as well as local people who use the area for low cost, family camping and picnicking.

3.5 Motorized-Vehicle Access

Management of motorized vehicles on public lands conforms with prescriptions set forth in the California Desert Conservation Area Plan (CDCA Plan, 1980), as amended. These management prescriptions are described in Appendix D.

Coachella Valley CDCA Plan Amendment Route Inventory Process. An inventory of existing routes on public lands within the Planning Area was initiated in 2001. The inventory process is described below:

- (1) Digital (computer based) U.S. Geological Survey (USGS) 1:24,000 topographic maps (Digital Raster Graphics, or DRGs) were acquired and displayed on a computer monitor.
- (2) A digital map of BLM-managed lands was superimposed on the USGS maps.
- (3) All routes depicted on the USGS maps that occur on BLM-managed lands were digitized ("traced"). This created a digital "coverage" or "data layer" of the route network.
- (4) The route network coverage was superimposed on digital imagery/aerial photographs (Digital Orthophoto Quarter Quads, or DOQQs). The aerial photographs that comprise the digital imagery were taken in 1996 and provide more recent information than depicted on the USGS maps.
- (5) Routes appearing in the digital imagery that were not depicted on the USGS maps were digitized as additions to the digital route network coverage.
- (6) The complete digital route network was printed on 1:24,000 USGS topographic.
- (7) To determine the accuracy and completeness of the digital route network coverage, the following steps were undertaken:
 - a) all routes depicted in the digital route network coverage were driven;
 - b) locations of routes on BLM-managed lands that were not depicted on the digital route network coverage were recorded;
 - c) routes depicted on the digital route network coverage that no longer exist were identified; and
 - d) routes were added to the digital route network coverage to reflect observations made in the field, and routes no longer in existence were identified "as non-routes."
- (8) USGS topographic maps depicting the revised digital route network coverage were printed.
- (9) The public was afforded an opportunity to comment on the accuracy and completeness of the route inventory for BLM-managed lands. Map sets and comment sheets were made available at the Palm Springs and Palm Desert Public Libraries, and BLM offices in Palm Springs and Riverside. In addition, map sets were furnished to selected groups for review.
- (10) Based on public comments and subsequent on-site inspection, the digital route network coverage was adjusted accordingly.

Throughout the public comment period for the Draft Plan Amendments and EIS, comments will be accepted regarding accuracy and completeness of the route network.

Route Designation Revisions. Decisions affecting vehicle access, such as area designations and specific route limitations, are intended to meet present access needs and protect sensitive resources. Future access needs or protection requirements may necessitate changes in these designations or limitations, or the construction of new routes. For mining operations, additional access needs will be considered in accordance with regulations pertaining to surface management of public lands under the U.S. Mining Laws (43 CFR 3809). Access needs for other uses, such as roads to private lands, grazing developments, or communication sites, would be reviewed on an individual basis under the authority outlined in Title V of FLPMA and in accordance with appropriate regulations. Each proposal would be evaluated for environmental effects and subjected to public review and comment. As present access needs become obsolete or as considerable adverse impacts are identified through the monitoring program, area designations or route limitations may be revised. In all instances, new routes for permanent or temporary use would be selected to minimize resource damage and use conflicts consistent with the criteria at 43 CFR §8342.1.

Motorized-Vehicle Route Designations. The mileage of vehicle routes crossing public lands within the planning area, excluding the NECO overlap area, is not large, totaling only 137 miles. (Route designations for the NECO overlap area are deferred to that CDCA plan amendment process.) The route network includes portions of major maintained dirt roads (e.g., Long Canyon Road, Dos Palmas access road), utility right-of-way routes (e.g., powerline roads), and routes established by continued recreation use. The route network on the floor of the Coachella Valley is currently affected by the non-attainment status of the Coachella Valley under the Clean Air Act, in part due to dust emissions from unpaved routes and off-highway vehicle use.

Parts of the route network are already closed to public vehicle access to protect existing communications facilities, energy generation facilities, water percolation facilities, biological values in wildlife preserves, or wilderness values in wilderness areas. The route network also includes features such as short spur routes, hill-climbs, and redundant (or multiple) routes leading to the same location. The current status of the route network in the planning area is summarized in Table 3-5. For more detailed information on specific routes or roads in the Coachella Valley, see Appendix D.

Table 3-5: Current Status of Routes on Public Lands

Area	Miles of existing routes available for use on BLM lands	Miles of closed routes (outside wilderness)
Coachella Valley	71	66 (BLM lands only, includes existing closures in Big Morongo Canyon ACEC and Dos Palmas ACEC)
		Routes in wilderness are closed to casual use by statute. Mileage of routes is undetermined.
NECO overlap (designations deferred to the NECO CDCA plan amendment process)	140 (estimated)	0 (pre-NECO decision)
		Routes in wilderness are closed to casual use by statute. Mileage of routes is undetermined.

Access on many of the public land roads is related to private land use decisions due to intermingled ownerships. Most routes in the Coachella Valley cross multiple ownerships. For this reason, many route locations and uses have developed over time in coordination with

local jurisdictions as land uses were approved. Because the route network involves limited mileage and is related to established uses, including public utilities, the range of options to substantially alter the route network is limited.

Dunn Road in the Santa Rosa Mountains was established by trespass in 1966. The status of the road was settled in 1975 in U.S. District Court by placing specific requirements on American Land Company (defendant) to limit and control access to the road. The road has been controlled by a locked gate since that time. In 1997, BLM acquired the parcel in Cathedral City Cove, which includes the northern gate controlling access to Dunn Road. In August of 2000, BLM completed a temporary closure on Dunn Road maintaining the controlled access provided by the locked gate pending a decision in this plan amendment. Dunn Road also crosses private land and landowners have at times denied access across their land to permitted public land users. Vehicle use of public land portions of Dunn Road is also related to use of tributary routes such as the Dry Wash route, an access route from Royal Carrizo, and short spur routes along the road.

The Dunn Road has been used for multiple purposes. It serves as an important fire control access for BLM, U.S. Forest Service, California Department of Forestry, and City of Palm Springs. Law enforcement and land use compliance assessments are by BLM, U.S. Forest Service, Riverside County, and City of Palm Springs. Search and rescue use is by Agua Caliente Band of Cahuilla Indians, BLM, U.S. Forest Service, and Riverside County. Administrative use for land management projects such as tamarisk control, cultural survey or monitoring is by Agua Caliente Band of Cahuilla Indians, BLM, U.S. Forest Service, California Department of Fish and Game, and private landowners. Although these administrative uses are very important, they result in fairly low vehicle use levels, historically averaging less than five visits per month except when a project or fire is ongoing.

Recreation use has accounted for most of the historic use of Dunn Road. Commercial jeep touring was a permitted use, allowing a public access option to the area for those who did not hike, ride horses, or ride mountain bikes. Jeep tours were a permitted use from 1989 to June of 2001 when lawsuit requirements and denial of access by a private landowner eliminated the use. Between September 1995 and June 1999, the permittee conducted tours for more than 42,000 customers. Most tours occurred from January to June (69%)—no tours were conducted in July and August—with the remaining tours from September to December (31%).

Currently, two right of way applications are in process for the Dunn Road. Both are from public agencies for the purposes of obtaining legal access to support flood control and administrative uses of the road.

3.6 Flooding and Hydrology

Precipitation and Flooding Potential. The San Bernardino, San Jacinto, and Santa Rosa Mountains effectively isolate the Coachella Valley from moist, cool maritime air masses coming on shore from the west. As a result, the region is characterized by a subtropical desert climate with hot, dry summers and mild winters. Mean annual rainfall is very low on the valley floor, typically ranging from four to six inches per year. In some years, no measurable rainfall has been reported. Typically, there is little or no streamflow in regional drainages, as climatic and drainage conditions are not conducive to continuous runoff. However, runoff and occasional flooding do occur during and immediately following rainstorms, and rainfall on surrounding mountains generally increases with elevation.

Precipitation generally occurs during winter months, from November through March. However, high-intensity thunderstorms can also occur from mid-summer through early fall. Such storms are capable of generating substantial quantities of rainfall in short periods of time, thereby increasing the risk for flash floods. Flash flooding is generally limited to washes extending from canyons, floodways and floodplains adjacent to rivers and streambeds, and low-lying drainages. However, flooding on alluvial fans can be particularly damaging because floodwaters move at high velocities and spread across wide, unchannelized areas.

Flooding can also result when unusually warm temperatures in early spring cause the snow pack on surrounding mountains to melt quickly. In fact, most surface water in the Coachella Valley is derived from snowmelt off the slopes of the San Bernardino, Little San Bernardino, and San Jacinto Mountains. The water is usually absorbed by porous sands and gravels on the valley floor. However, if surface sediments are already saturated, additional runoff can remain on the surface and result in minor to major flooding.

Historic weather reports indicate that major storm events have occurred in the Coachella Valley. Benchmark storms recorded by the Army Corps of Engineers include the storm of September 24, 1939, which was centered over Indio and generated 6.45 inches of rain in a 6-hour period. Tropical storm Kathleen, which occurred on September 9–11, 1976, generated heavy rainfall in Riverside, San Bernardino, and Imperial Counties. The mountains and hillsides of the Coachella Valley received as much as 14 inches of rainfall, which drained onto the valley floor and caused extensive flooding and property damage.

Whitewater River Basin. The fluvial system of the Coachella Valley consists largely of ephemeral stream channels or washes, which originate in the surrounding mountains and drain into large alluvial fans that spread onto the valley floor. Most runoff is generated within the San Bernardino, Little San Bernardino, and San Jacinto Mountains west and north of the valley.

The Whitewater River is the primary drainage facility for the Coachella Valley. It emanates from the San Bernardino Mountains at the northwesterly edge of the planning area, flows southeast to La Quinta, northeast to Indio, and drains into the Salton Sea. It extends a total of 70 miles and drains an area containing roughly 400 square miles of valley land and 1,550 square miles of mountains ranges, including the San Bernardino, Little San Bernardino, San Jacinto, and Santa Rosa Mountains.⁸ Its tributaries are numerous and include the following: San Gorgonio River, Palm Canyon Creek, Deep Canyon Creek, Palm Valley Channel, Thousand Palms Canyon, West Wide Canyon, East Wide Canyon, Deception Canyon, Edom Hill Creek, Pushwalla Canyon, Snow Creek, Dead Indian Creek, Magnesia Springs, Cathedral Creek, Andreas Creek, Chino Creek, Tahquitz Creek, Bear Creek, and Mission Creek.

⁸ "Whitewater River Basin Draft Feasibility Report and Environmental Impact Statement," Los Angeles District, Army Corps of Engineers, June 2000.

Roughly from Windy Point to Indian Avenue, the Whitewater River channel broadens into a low-lying floodplain that measures more than a mile in width. As it nears Cathedral City, the Whitewater River narrows and becomes a partially improved channel known as the Whitewater River Stormwater Channel, which protects urban development from potential flooding. East of Washington Street in La Quinta, the Whitewater River consists of a man-made channel known as the Coachella Valley Stormwater Channel.

FEMA Flood Hazard Areas. The Federal Emergency Management Agency (FEMA) is responsible for the analysis and mapping of areas prone to major flooding in the United States. Within the Coachella Valley, the 100-year floodplain generally occurs on and at the base of washes and alluvial fans, such as Mission Creek and the Morongo Wash in Desert Hot Springs, the Magnesia Springs Canyon alluvial fan in Rancho Mirage, and along Little Morongo, Big Morongo, and Smith Canyon Creeks in the Morongo Valley portion of the planning area. It is also contained within man-made channels, such as the Whitewater River/Coachella Valley Stormwater Channel and the La Quinta Evacuation Channel. Areas of 500-year flood inundation typically occur adjacent to the outer edges of the 100-year floodplain. Higher-elevation hills and mountain slopes are subject to only minimal flooding, as are those portions of the central valley floor, which occur at some distance from canyons and washes.

Stormwater Management Responsibilities. Regional stormwater management in the Riverside County portion of the CDCA planning area is the responsibility of the Coachella Valley Water District (CVWD) and the Riverside County Flood Control and Water Conservation District. The Coachella Valley Water District encompasses nearly 640,000 acres, primarily within eastern Riverside County, but also extending into Imperial and San Diego Counties. The Whitewater River/Coachella Valley Stormwater Channel is CVWD's principal stormwater management facility in the Coachella Valley. The Riverside County Flood Control and Water Conservation District has jurisdiction over approximately 2,700 square miles, primarily in western Riverside County, but including the westerly portion of the Coachella Valley and Anza-Borrego portions of the CDCA planning area. It owns and operates 40 dams and several hundred miles of storm drains, channels and levees. Regional stormwater management in the Morongo Valley portion of the CDCA planning area is the responsibility of the San Bernardino County Flood Control District. Individual cities are responsible for smaller-scale, localized stormwater management issues within their boundaries, including the construction of storm drains on urban streets and site-specific detention/retention basins.

Flood Management Improvements. A wide range of regional flood control improvements, including dams, debris basins, and concrete-lined channels, have been constructed throughout the Coachella Valley in an effort to protect life and property from flooding hazards, particularly the 100-year flood. Smaller-scale improvements have been constructed to protect specific neighborhoods and communities from flood flows and to convey mountain runoff to the Whitewater River.

No major flood control facilities have been constructed in the Anza-Borrego or Morongo Valley portions of the CDCA planning area. Although the San Bernardino County Flood Control District's Drainage Master Plan includes preliminary plans for flood control channels along the Big and Little Morongo Creeks in Morongo Valley, the District has no intentions of constructing any improvements in the near term.⁹

⁹ Mona Sadek, Flood Control Section, Planning Department, County of San Bernardino, personal communication, March 22, 2002.

Stormwater Runoff Pollution Control. Runoff from developed land has the potential to contaminate and introduce pollutants to surface and ground waters. The federal Clean Water Act of 1972 establishes a strategy to restore and maintain water quality by reducing “point source pollution,” including pollutants from industry and sewage treatment facilities. Section 404 of the Act grants the U.S. Army Corps of Engineers with the authority to evaluate and approve development projects that could potentially impact waters of the United States.

In 1987, amendments to the Clean Water Act shifted the focus of polluted runoff and required states to reduce discharges to the waters of the United States. These amendments required the U.S. Environmental Protection Agency to formally regulate polluted runoff utilizing a permit system under the National Pollutant Discharge Elimination System (NPDES). The NPDES program requires communities to apply for municipal permits to eliminate or control “non-point source pollution.” In California, the state is responsible for administering the NPDES permitting program. In the Coachella Valley region, this task is the responsibility of the Colorado River Basin Regional Water Quality Control Board.

3.7 Water Resources/Quality

The environment of the Coachella Valley is a result of a complex interplay between its geophysical and geographic location. The Coachella Valley is part of the Colorado Desert system, and receives less than three inches of rainfall annually. At the same time, the Coachella Valley is resplendent with water, captured by the surrounding mountain ranges. There are various challenges facing the Coachella Valley with regard to water issues, including:

- ▶ availability of water sources for bighorn sheep during summer months and the need for artificial watering holes;
- ▶ extent and timing of noxious weed removal, especially tamarisk, to protect ground water supplies and sheep watering holes;
- ▶ working with federal, state, and local partners to ensure the health and viability of the Whitewater River, which drains into the Salton Sea; and
- ▶ initiating state approved nonpoint source management measures and helping to achieve federal standards for water quality as established by the 1997 Clean Water Action Plan.

The venturi effect caused by the meeting of the San Geronio and San Jacinto mountain ranges, brings strong winds to the Valley. While key to the Valley's blow-sand habitat, and as a source of renewable wind energy, these winds also bring air pollution from the Los Angeles Basin. Moreover, the blow-sand raises particulate matter concerns.

Hydrologic Units. The planning area is located within the Colorado River Basin Region. The basin is divided into planning regions. The Salton Sea Planning Area, the Anza-Borrego Planning Area, the Hayfield Planning Area and the Coachella Valley Planning Area are all within the Coachella Valley CDCA planning boundary. The planning areas contain subwatershed basins also called hydrologic units. The Salton Sea Planning Area and Hydrologic Units consists entirely of the Salton Sea which is a saline body of water between the Imperial and Coachella Valleys. The climate is arid and the average precipitation is 2.6 inches. The replenishment is from farm drainage and seepage, as well as significant storm events. Dos Palmas preserve is within this area. A small segment of the Anza-Borrego Planning Area and Hydrologic Units resides within the boundary of the plan amendment area under consideration. The Hayfield Planning Area and Hydrologic Units incorporate lands within the eastern portion of the Coachella Valley CDCA planning boundary. The Coachella Valley Planning Area and Hydrologic Units encompasses the Coachella Valley watershed proper.

Uses of water that support terrestrial ecosystems including, but not limited to, the preservation and enhancement of terrestrial habitats, vegetation, wildlife water and food sources are considered beneficial uses of water by the Water Quality Control Plan. This aspect of the plan provides an important connection between state water goals and the Bureau's own goals for supporting plant and wildlife habitat.

Watersheds. According to the most recent EPA's Index of Watershed Indicators (National Watershed Characterization, 1999) the Salton Sea Watershed was rated as a:

- (1) **Watershed with More Serious Water Quality Problems** = Watersheds with aquatic conditions well below State or Tribal water quality goals that have serious problems exposed by other indicators, and
- (2) **Watershed with Lower Vulnerability to Stressors** = Watersheds where data suggest pollutants or other stressors are low, and, therefore there exists a lower potential for future declines in aquatic health. Actions to prevent declines in aquatic conditions in these watersheds are appropriate but at a lower priority than in watersheds with higher vulnerability.

Springs. Springs are located throughout the planning region. Springs are commonly located along the San Andreas Fault Zone which traverses the north-eastern portion of the Coachella Valley. Springs are also common in the Santa Rosa and San Jacinto Mountains area. Springs are vital to wildlife seeking water in the hot summer months.

Surface Water. Surface water is most abundant in rivers coming from the Santa Rosa and San Jacinto Mountains, and the San Bernardino Mountains (such as Whitewater Canyon, Big Morongo Canyon). Surface water also occurs at Dos Palmas along Salt Creek.

Groundwater. Increased urbanization and accompanying recreational water usage in addition to desert agriculture has been reducing the level of the groundwater aquifer.

Perennial and Intermittent Streams. Visible only as dry desert washes for most of the year, "intermittent" streams provide habitat for a number of species. Streams also provide the means for seed dispersal of exotic plants such as tamarisk.

Best Management Practices. According to the Best Management Practices (BMP) outlined by the USDA Forest Service, existing and potential non-point potential water pollution sources will be identified and evaluated to determine the need for and type of treatments necessary to maintain water quality. Lands found to be in need of watershed improvement work will be scheduled for treatment as part of ongoing work/planning/budgeting process.

BMP's are designed to synthesize a number of directives into a process to be followed when addressing water quality of management areas. Each BMP consists of (1) objectives, (2) an explanation with general considerations which are incorporated into the planning process of project design and (3) implementation guidelines. For example, prior to initiation of road construction activities, a BMP concerning the timing of construction would be implemented to minimize erosion and sedimentation. An additional BMP to control traffic during wet periods would further aid in limiting the potential damage to water quality.

3.8 Biological Resources

3.8.1 Native Biological Resources

The desert floor of the Coachella Valley ranges in elevation from more than 150 feet below sea level at the southeast end to nearly 2,000 feet at the northwest end of the valley on the alluvial fans. The mountains surrounding the Coachella Valley range in elevation up to 10,804 feet, with elevations on the southern side of the valley substantially higher than those on the northern side. This range of elevations and accompanying differences in temperature, precipitation and other environmental variables are significant factors contributing to the areas's remarkable variety of plant and animal species.

Many canyons in the mountains support riparian areas not typical of a desert environment. Streams and seeps also support many palm oases, especially in the Santa Rosa Mountains. Where the water drains into the sands, desert dry wash woodlands result. The alluvial fans associated with the canyon mouths provide still another major land form and distinctive biological community. Another feature contributing to the biological diversity are the strong winds that funnel through the San Gorgonio Pass from the west through areas of sand deposition from the San Gorgonio and Whitewater rivers and create an aeolian dune system. Historically, this dune system occupied much of the center of the valley.

The San Andreas fault zone has created a unique corridor of palm oases stretching along the southern side of the Indio Hills where water is forced to or near the surface by the damming action of the fault. Mesquite hummocks and mesquite bosques are also associated with the fault in some areas. The Salton Sea contributes to biological diversity through the creation of marsh, mudflat, and other wetland habitats. The low elevation of the Salton Sea trough creates an arid, hot environment, which combined with the salinity of the soils, produces an uncommon alkali sink scrub community.

According to Peter Raven, writing in *Terrestrial Vegetation of California*, "California contains the most remarkable assemblage of native plant species in all of temperate and northern North America." One of the two highest centers of endemism in California for "relict species," (i.e. those that have persisted from earlier geologic periods in California) is in the northern and western margin of the Colorado Desert, from the Little San Bernardino Mountains, along the east slope of the San Jacinto and Santa Rosa Mountains, the Borrego Valley area, and southward into Baja California.

For a number of reasons, many of these species have been identified by state and federal agencies as needing additional protection to ensure their continued survival. These special status species include nine federally listed endangered species, all state listed threatened and endangered species, species designated as sensitive by the BLM in California, as candidate species by the USFWS, and as species of special concern by the USFWS and the California Department of Fish and Game (CDFG). A complete listing of the species considered in the CVMSHCP is provided in Table 3-6. By including these latter species in the CDCA amendment, the BLM hopes to prevent future listings of species in the Coachella Valley. BLM will use recommendations from available recovery plans, research information and data, and other documents on special status species, to establish management prescriptions and guidelines that will facilitate recovery of these species and prevent additional listings.

Table 3-6: Special status species in the Coachella Valley

COMMON NAME	SCIENTIFIC NAME	STATUS
Arroyo Toad	<i>Bufo microscaphus californicus</i>	FE
Burrowing Owl	<i>Speotyto cunicularia</i>	None
California Black Rail	<i>Laterallus jamaicensis</i>	ST
Casey's June Beetle	<i>Dinacoma caseyi</i>	None
Coachella Valley Giant Sand Treader Cricket	<i>Macrobaenetes valgum</i>	None
Coachella Valley Grasshopper	<i>Spaniancris deserticola</i>	None
Coachella Valley Jerusalem Cricket	<i>Stenopelmatus caluilaensis</i>	None
Coachella Valley Milk Vetch	<i>Astragalus lentiginosus coachellae</i>	FE
Coachella Valley Round-tailed Ground Squirrel	<i>Spermophilus tereticaudus chlorus</i>	SSSC
Crissal Thrasher	<i>Toxostoma crissali</i>	SSSC
Desert Pupfish	<i>Cyprinodon macularius macularius</i>	FE, SE
Desert Slender Salamander	<i>Batrachoseps aridus</i>	FE, SE
Desert Tortoise	<i>Xerobates (or Gopherus) agassizii</i>	FT, ST
Flat-tailed Horned Lizard	<i>Phrynosoma mcallii</i>	SP
Gray Vireo	<i>Vireo vicinior</i>	SSSC
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	FE, SE
Le Conte's Thrasher	<i>Toxostoma lecontei</i>	SSSC
Little San Bernardino Mountains Linanthus (formerly Gilia)	<i>Linanthus maculata</i>	FSSC, FC
Mecca Aster	<i>Xylorhiza cognata</i>	None
Orocopia Sage	<i>Salvia greatae</i>	SSSC
Palm Springs Pocket Mouse	<i>Perognathus longimembris bangsi</i>	None
Peninsular Ranges Bighorn Sheep	<i>Ovis canadensis nelsoni</i>	FE, ST
Pratt's Blue Butterfly	<i>Euphilotes enoptes cryptorufes</i>	None
Southern Yellow Bat	<i>Lasiurus ega (xanthinus)</i>	SSSC
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	FE, SE
Summer Tanager	<i>Piranga rubra cooperi</i>	SSSC
Triple-ribbed Milk Vetch	<i>Astragalus tricarlinatus</i>	FE
Yellow-breasted Chat	<i>Icteria virens</i>	SSSC
Yellow Warbler	<i>Dendroica petechia brewsteri</i>	SSSC
Yuma Clapper Rail	<i>Rallus longirostris yumanesis</i>	FE, ST

FE = Federal Endangered Species SSSC = State Species of Special Concern

FT = Federal Threatened Species SE = State Endangered Species

FC = Federal Candidate Species ST = State Threatened Species

The Peninsular Ranges population of desert bighorn sheep was listed as endangered by the USFWS on March 18, 1998. During the past 26 years, the population has declined dramatically from about 1,100 animals to as few as 300 sheep. This decline has been attributed to a variety of causes, including disease, automobile collisions, mountain lion predation, exotic plant invasion, toxic plant ingestion, competition with cattle, habitat loss, degradation and fragmentation, and recreational disturbance.

In the last four years, the population has stabilized and appears to be increasing. BLM has implemented interim measures to promote recovery of bighorn sheep populations. Through implementation of the CVMSHCP and BLM's CDCA plan amendment, long-term management direction will be established. The Bighorn Sheep Recovery Plan, completed in October 2000, provides recommendations for developing and assessing conservation and management activities in order to achieve recovery of the bighorn. Because the ESA permitting process is tied to the CVMSHCP planning process, BLM's CDCA plan amendment has primary responsibility for addressing protection and recovery of Peninsular Ranges bighorn sheep.

Several of the alternatives (such as the habitat conservation objectives) and much of the analysis conducted for this CDCA Plan Amendment are based in large part on the draft Technical Appendix (July, 2001) prepared for the Coachella Valley Multi-Species Habitat Conservation Plan. The draft Technical Appendix provides detailed information about the vegetative communities found in the planning area, the various plant and wildlife species which occupy these communities, and natural history information about each of the plant and wildlife species. The draft Technical Appendix, which is incorporated into this document by reference, was prepared by the Coachella Valley Mountains Conservancy with input from the Scientific Advisory Committee, USFWS, CDFG, BLM, and citations from numerous scientific papers and documents addressing sensitive species.

3.8.2 Exotic (Non-native) Weeds and Pests

Noxious weeds are a serious problem in the western United States. Estimates of the rapid spread of weeds in the west include 2,300 acres per day on BLM-administered lands and 4,600 on all western public lands. For example, many weed species like perennial pepperweed (tall whitetop), purple loosestrife, yellow starthistle, hoary cress (short whitetop), leafy spruce, spotted knapweed, diffuse knapweed, and many others are non-native to California and the United States and have no natural enemies to keep their populations in balance. As a result, these undesirable weeds rapidly invade healthy ecosystems, displace native vegetation, reduce species diversity, degrade wildlife habitat and special areas such as wilderness, wilderness study areas, areas of critical environmental concern, National Conservation Areas, and National Monuments. Noxious weed invasions reduce rehabilitation and landscape restoration successes, reduce domestic and wildlife grazing capacity, increase soil erosion and stream sedimentation, and threaten federally protected plants and animals.

Exotic pests, such as brown-headed cowbirds, non-native ants, African frogs, tilapia, bullfrogs, and crayfish, all contribute to the decline of native wildlife species. These species tend to out-compete the native fauna for scarce resources and are often aggressive predators of the native wildlife species. Domesticated animals, such as cats and dogs, can be very destructive to the native fauna. Studies have shown that natural areas along urban interfaces where cats and dogs are allowed to run wild, result in wildlife sinks (high mortality areas for native wildlife).

3.9 Cultural Resources and Native American Concerns

3.9.1 Ethnographic and Historic Overview

The geographic area addressed by this CDCA Plan Amendment was inhabited by the Cahuilla prior to the founding of the Spanish missions along the coast in 1769. During the subsequent century, the Cahuilla became increasingly familiar with Spanish, Mexican, and Euro-American cultures, while maintaining the integrity of their own culture. In 1877, reservations were established in Southern California, and access to lands off-reservation became increasingly difficult to the Cahuilla; nevertheless, the religious and cultural importance of landscapes, places, and resources off-reservation was remembered. The CDCA Plan Amendment is being developed with consideration of potential effects of planning actions on religious and cultural values of the Cahuilla, and the neighboring Serrano, and is consistent with the National Historic Preservation Act and implementing regulations at 36 CFR 800.

Cahuilla history has a religious as well as a secular component because the Cahuilla world view does not separate the two. Their homeland is defined by events associated with the first people and with later events which occurred during the settlement of the territory by socio-political subdivisions (clans and lineages). Landscape features (such as mountains, rock formations, and boulders) and natural resources (such as springs and certain animals, birds and reptiles) may have religious significance, as may specific places inhabited by clans and lineages which are marked by cultural artifacts and features such as pictographs.

The religion of the Cahuilla addresses the beginning of the universe, life forces, and all creatures. Some of the earliest beings are embodied in rock formations, boulders, and other aspects of nature. Other natural features commemorate specific events involving earliest beings. Another aspect of Cahuilla religion is that some of the earliest created beings exist in transformed states in nature and these transformed states are associated with springs, mountain sheep, deer, bears, mountain lions, eagles, desert tortoise, and other elements of the environment. Other natural features and locations may be notable because they were integral to song cycles which are an important aspect of Cahuilla history and culture. Such natural resources, including their treatment and management, are important to the Cahuilla.

As each lineage territory was established, the founding religious leader named landscape features which bounded and comprised the territory. Each lineage recognized a tract of land with a range of biotic resources which provided food, medicine, and other raw materials, and all resources within the tract were used to a greater or lesser degree. Within each tract, a village settlement was located near a dependable source of water and within reasonable range for procuring staple foods. Village sites with their religious features and human burials, including grave sites, of historically important Cahuilla, and historic-religious context are important places. Places of transitory residence were located at some distance from the village. Included among these sites are caves which were used for residential and religious purposes. Trails connecting residential sites, special use sites, and resources are also of importance.

Residential villages of the Cahuilla who lived in areas west and north of the desert have been recorded in many publications. Strong (1929) published a list of Cahuilla clans and their locations, which included: Indian Wells, Andreas Canyon, Palm Springs, Whitewater Bridge, Blaisdell Canyon, Snow Creek Canyon, Stubby Canyon, Banning Water Canyon, San Timeteo Canyon. He also listed several lineages and as many as twenty villages in Coyote Canyon, at Santa Rosa, and at the bases of Cahuilla and Thomas Mountains. James (1960:46-47) listed some Cahuilla villages at: the entrance to Stubbe, Whitewater, Snow Creek, Blaisdell, Andreas, Chino, Tahquitz, and Deep Canyons; at Palm Springs Station; around the hot springs in Palm Springs, Toro and Santa Rosa Peaks; New Santa Rosa; a half mile east of Horse Canyon; and , in

the 1870's, around the warm springs five miles west of Anza. Bean (1991) described places in the San Jacinto and Santa Rosa mountain regions, such as, San Gorgonio Pass and Whitewater Canyon; the Palm Springs area; Palm, Andreas, Murray, Martinez, and Toro Canyons; and the Santa Rosa and Rockhouse Canyon areas.

The north western portion of the plan area falls within the traditional lands of the Serrano. The Serrano apparently inhabited the San Bernardino Mountains and areas to the north. Specifically they may have inhabited the Big and Little Morongo Canyon and Mission Creek areas (Bean and Smith 1978; Daly, Davis, and Lerch 1981; Kroeber 1925). Bean and Smith (1978:570) state that it is "nearly impossible to assign definitive boundaries for Serrano territory due both to Serrano sociopolitical organizational features and to a lack of reliable data."

The term "Serrano" derives from the Spanish for "mountaineers" (Bean and Smith 1978; Kroeber 1925). The Serrano speak a dialect of the Takic sub-family of the Uto-Aztekan language group. This dialect is distinct from that of their Cahuilla neighbors, but Serrano technology, subsistence practices and sociopolitical organization were very similar to that of the Cahuilla. The Serrano in the plan area were divided into two moieties: the Wildcats and the Coyotes. The moieties were further divided into clans and lineages. During the historic period, Cahuilla and Serrano groups were allied by trade and intermarriage. Many Serrano currently reside on the Morongo Reservation with the Cahuilla.

The Mission Creek and Morongo areas appear to have been shared by the Cahuilla and Serrano. Bean, Vane, and Young (1991) report that a Cahuilla lineage occupied Mission Creek. Other sources (Daly, Davis, and Lerch 1981) document that a Serrano clan occupied the village of Yamisevul in Mission Creek.

The Mission Creek Reservation was established in 1876. It was later returned to public domain due to a lack of Indian inhabitants. The reservation was reestablished and expanded in 1908, divided into allotments during 1925 through 1927, and disbanded in 1969. The former reservation is currently privately owned while surrounding lands are under management of the BLM.

The Mission Creek area was relatively free of White intrusion until the mid nineteenth century. The opening of the Bradshaw Road and the Colorado Stage and Express Line in 1862 led to an increase in Euroamerican travel through San Gorgonio Pass and the plan area in general. The Bradshaw Trail was developed initially to serve the mining camps at La Paz. Bradshaw developed the portion of the trail which runs through the plan area with assistance from members of Cahuilla chief Cabezon's village. The route runs south of the Orrocopia mountains and north of Dos Palmas and is also referred to as the Cocomaricopa or Maricopa-Cahuilla trail (Warren and Roske 1981). Frink's Route was another east to west trail established prior to Bradshaw's trail and portions of it were followed by Bradshaw. Stage and wagon stops were typically located near springs or other water sources. The Southern Pacific Rail Road was constructed in 1875 and 1876. Increased travel through the Coachella Valley led to an increase in the rate of culture change and cultural disruption among the Cahuilla and Serrano.

Mining played a small role in the history of the Coachella Valley. Historic mines located on lands currently managed by the BLM include clay, fluorospar, gold, and talc mines. The most common mining activity in the plan area at this time is for sand and gravel. The Colorado River Aqueduct was constructed through the plan area during the 1930's. Historic sites associated with workers' residential camps are located in the foothills of the Little San Bernardino Mountains. Activities associated with Patton's Desert Training Center also occurred on BLM managed lands within the Coachella Valley. The Desert Training Center was opened in 1942 with its Division Headquarters at Camp Young near Chiriaco Summit. Maneuvers were conducted on both sides of what is now Interstate 10 and in the lands south of the Orrocopia Mountains.

3.9.2 Section 106 Compliance

Section 106 of the National Historic Preservation Act (NHPA) of 1966 directed federal agencies to take into account the effects of their undertakings on historic properties- those archaeological and historic sites already listed on the National Register of Historic Places. Executive Order 11593 (1979) instructed federal agencies to identify properties, determine if they were eligible for the National Register, and evaluate the potential effects from proposed undertakings. As a result of EO 11593, eligible properties were to be treated with the same respect as sites already listed on the National Register.

Following implementation of the NHPA and EO 11593, federal agencies required that cultural resources inventories be conducted in advance of the approval of undertakings. The majority of large-area cultural resources inventories on BLM managed lands in the Coachella Valley occurred in the late 1970's and early 1980's. This period also corresponds with the development of wind energy and the construction of major powerlines through the valley. Since the late 1980's nearly all inventories have been conducted for compliance with Section 106 of the NHPA and are primarily associated with development or land exchange proposals.

Cultural resources surveys from the late 1970's through the present all appear to meet current standards. Transect width varies from 10 meters to 45 meters. One survey project included some "windshield survey" but this approach was used only in areas with a low potential for historic properties. Many surveys conducted in the Coachella Valley have assumed that active floodplains would present little potential for intact or significant cultural resources and have therefore excluded these areas or have used wider transects to cover them. The topography of the Coachella Valley also includes extremely steep slopes. Steep areas have typically been excluded from inventory. The only apparent weakness of early surveys was the quality of site records that were prepared. The majority of site forms were completed during or before the 1970's and consist of a single page with minimal information and may not include sketch maps or accurate location maps. There is a need to revisit and update site forms for archaeological sites in the Coachella Valley. Many of the sites may have been destroyed by the development that prompted their recordation. Wilke (1976) completed an overview of the human ecology of Ancient Lake Cahuilla and the Coachella Valley and feels that many of the sites he studied in the 1970's have been destroyed as a result of development (Wilke 2002).

Section 110 of the National Historic Preservation Act calls for federal agencies to identify and preserve historic properties under their jurisdiction. Cultural resources inventories which are not driven by proposed projects or undertakings are typically referred to as "110 surveys". Very little of this type of inventory has occurred on BLM managed lands in the Coachella Valley. A systematic sample survey was conducted in conjunction with the California Desert Conservation Act planning effort in the late 1970's. Eighteen of these sample units, a total of approximately 1600 acres of survey, fell on lands which are still managed by the BLM. Since that time it appears that less than 100 acres of non-project related survey has been conducted in the CDCA plan amendment study area.

A total of approximately 23,200 acres of cultural resources inventories have been conducted on BLM managed lands in the Coachella Valley plan area. This represents approximately 7% of the total acreage of BLM lands. Approximately 116 archaeological sites have been recorded. The majority of these are prehistoric sites containing artifacts and features such as lithics, ceramics, bone, beads, bedrock mortars, hearths, rock walls or alignments, agave roasting pits, and cairns. Historic sites include can and bottle concentrations and structure foundations. In addition there are 12 sites recorded as trails. These sites are generally interpreted as prehistoric in origin since prehistoric artifacts are commonly found along them.

Table 3-7: Cultural Sites Located on BLM-Managed Lands

	Prehistoric Sites	Historic Sites	Trails	Incomplete Site Record
Sites Located on BLM Managed Lands	91	3	12	22

Examination of site location and elevation data indicates that the majority of recorded sites on BLM managed lands in the plan area occur in the Lower Sonoran life zone. This would be consistent with ethnographic data that places Cahuilla village sites within this life zone on valley floors or near the mouth of canyons (Bean, Vane and Young, 1991). Recent archaeological survey also indicates an extensive use of the Ancient Lake Cahuilla shoreline (Schaefer, Palette, And Bean 1993). However, it is important to remember that BLM lands tend to occur at lower elevations and recorded sites correlate primarily with the locations of cultural resources inventories.

Table 3-8: Sites Located on BLM-Managed Lands by Life Zone

	Ancient Lake Cahuilla Shoreline + 50 Feet	Lower Sonoran Life zone	Upper Sonoran Life Zone
Number of sites	36	72	8

Historic properties are those cultural resources which are found to be eligible for listing on the National Register of Historic Places (NRHP). The National Register Criteria for Evaluation can be found at 36 CFR 60.4. The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

- (1) Are associated with events that have made a significant contribution to the broad patterns of our history; or
- (2) Are associated with the lives of persons significant in our past; or
- (3) Embody the distinctive characteristics of a type, period or method of construction, that represent the work of a master, that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (4) Have yielded or may be likely to yield information important in prehistory or history.

Few sites in the plan area have been formally evaluated for their eligibility to be listed on the National Register. One site, Rancho Dos Palmas, was determined to not be eligible. Two districts, Rockhouse and Martinez Canyons, are currently being proposed for NRHP listing. Currently the Martinez Canyon Rockhouse is the only NRHP listed property on BLM-managed lands. One National Register listed site, the Coachella Valley Fish Traps, occurs on lands not managed by the BLM but within a proposed trail corridor.

Existing site forms generally provide too little information to make decisions regarding the potential for a site to contain significant information. It is also difficult to assess the integrity of sites from existing records. Review of site forms on file at the Palm Springs-South Coast Field Office indicate that there are several sites that may have the potential to meet the eligibility criteria. Several others consist of surface concentrations of a single artifact or feature type and have little potential to contribute significantly to our understanding of the past. These are listed as "Not Eligible" in Table 3-9. Table 3-9 reflects the contents of the existing database.

Table 3-9: Eligibility Status of Recorded Sites

	Unevaluated / Insufficient information	Not Eligible	Eligible / Warrant Additional Study	Determined Not Eligible
Recorded sites	65	30	20	1

The Native American Heritage Commission was contacted and a sacred lands file search was conducted for the lands included in the Coachella Valley plan area. Several historic cemeteries and geographic features or areas were reported to be of particular significance to local Native American groups. The geographic features are important for their relationship to important events in oral history and ceremony. Some locations are identified as traditional plant gathering areas. As specified in the CDCA Plan (1980, as amended) "data on Native American socio-cultural values will be treated as 'sensitive'..." and the specific results of the sacred lands file search will not be discussed in this document. Areas identified as sensitive, whether as a result of the files search or through Native American consultation, will be given consideration in the planning process.

3.10 Air Quality

3.10.1 Background

Under the Clean Air Act as Amended (1990), National Ambient Air Quality Standards have been developed by the EPA. These standards are used to classify areas as to whether they are in attainment, in non-attainment, or are unclassified for any of the air quality standards. Areas that are classified as non-attainment areas are required to prepare and implement a State Implementation Plan that identifies and quantifies sources of emissions and provides a strategy to reduce emissions. Under the Clean Air Act conformity rules (CAA 176(c) and 40 CFR part 51 subpart W), activities on BLM-managed lands in a non-attainment area must conform to the applicable State Implementation Plan.

The air quality of a particular locale is based on the amount of pollutants emitted and dispersed, and climatic conditions that may reduce or enhance the formation of pollutants. The South Coast Air Quality Management District (SCAQMD), a subdivision of the California Air Resources Board (CARB) is responsible for establishing criteria, both state and federal, and thresholds by which air quality in the Coachella Valley can be measured.

California requires a reduction in district-wide emissions of five percent or more per year until these standards are met. California has also set statewide emission limitations for odor or unhealthful emissions, visible emissions, open burning, sandblasting, gasoline vapors, and incineration of toxics.

Suspended particulate matter is the most serious air quality issue faced by the region, which occasionally exceeds both state ($>50\mu\text{g}/\text{m}^3$ or 50 micrograms per cubic meter) and federal ($>150\mu\text{g}/\text{m}^3$) standards for PM₁₀. PM₁₀ refers to small suspended particulate matter, 10 microns or less in diameter, which can enter the lungs. These small particles can be directly emitted into the atmosphere as a by-product of fuel combustion; through abrasion, such as wear on tires or brake linings; or through wind erosion of soil. Mining operations, OHV use, and grazing all contribute to PM₁₀ levels. They can also be formed in the atmosphere through chemical reactions. Carcinogens and other toxic compounds can stick to the particle surfaces and enter the lung. PM₁₀ is reduced directly by controls on fugitive dust and indirectly by controls on all other pollutants which contribute to the formation of particles.

Another measurement of air quality is the level of ozone, which is formed by photochemical reactions between oxides of nitrogen and volatile organic compounds (VOC). VOCs are formed from the incomplete combustion of fuels and from evaporation of organic solvents. Elevated ozone levels in the air we breathe (as opposed to the upper atmosphere where it protects us from harmful radiation) result in reduced lung function, particularly during vigorous physical activity. Reducing ozone levels involves controlling both NO_x and VOC emissions. NO_x controls were described above. Typical VOC controls include reducing the VOC content of paints and solvents, and controlling fumes from gasoline pumping, auto body painting, furniture finishing, and other operations that involve organic chemicals and solvents.

3.10.2 Coachella Valley Portion of the CDCA Planning Area

The Coachella Valley is located within the Salton Sea Air Basin (SSAB), a geographic area regulated by SCAQMD. The Salton Sea Air Basin is generally bounded on the west by the San Jacinto Mountains, and on the east by the eastern edge of the Coachella Valley. The SCAQMD is under a legal obligation to make and enforce air pollution regulations. These regulations are primarily meant to ensure that the surrounding (or ambient) air will meet National Ambient Air Quality Standards and state air quality standards for concentration and duration for which air pollutants may negatively affect health. SCAQMD also has broad authority to regulate toxic

and hazardous air emissions, and these regulations are enforced in the same manner as those which pertain to the ambient air quality standards. In addition, SCAQMD must meet California standards for hydrogen, sulfide, sulfates, and vinyl chloride, as well as state standards for visibility.

SCAQMD currently monitors ambient air quality, including PM₁₀ concentrations, at two air monitoring stations in the Coachella Valley (Palm Springs and Indio). These ambient air standards are health-based and concern the following six air contaminants: sulfur dioxide, lead, ozone, nitrogen dioxide, carbon monoxide, and fine particulate matter (PM₁₀ and PM_{2.5}). These standards are designed to protect the most sensitive persons from illness or discomfort with a margin of safety. The Indio site has been operational since 1985, and the Palm Springs site has been operational since 1987. The sampling frequency at both monitoring stations is once every three days.

Based on monitoring reported in the 1996 Coachella Valley State Implementation Plan, approximately 53 tons of PM₁₀ were released into the atmosphere in Coachella Valley on an average day in 1995. Of these, one percent was caused by fuel combustion, waste burning and industrial processes. Man-made and natural dust-causing activities, such as agricultural tilling in fields, construction and demolition operations, or driving on paved or unpaved roads account for 96%. Less than three percent of Coachella Valley's emissions are caused by mobile source tailpipe and brake/tire wear emissions.

Expansion of mining area and other potential dust-generating activities on BLM lands have the potential to generate emissions of various types. Within the Coachella Valley there is a natural sand migration process which has direct and indirect effects on air quality. Each year, winter rains cause erosion of adjacent mountains, and water run-off into the northern part of the Coachella Valley produces huge deposits of newly-created sand in that area. During the spring months, persistent, strong winds carry the sand methodically down the valley. Called "blowsand", this natural sand migration process produces PM₁₀ in two ways: (1) by direct particle erosion and fragmentation (natural PM₁₀); and (2) by secondary effects, such as sand deposits on road surfaces which can be ground into PM₁₀ by moving vehicles, and resuspended in the air by those vehicles (man-made PM₁₀).

In the spring and early summer months, meteorological conditions favor the development of strong winds. Seasonally, as the deserts begin to heat up, surface pressures are systematically lower. This creates a "vacuum-like" effect, whereby cooler, ocean-modified air is pulled toward the deserts. As the air is channeled through Banning Pass, which separates the Coachella Valley from the South Coast Air Basin, it accelerates, creating winds which frequently exceed 40 miles per hour (mph). On occasion, winds exceed 60 mph and widespread natural dust storms develop. Desert visibility, which typically exceed 35 miles, can be reduced to less than a mile by the blowsand. On other occasions, summer thunderstorms generate strong gusts and produce large-scale dust storms. Under both of these meteorological conditions, the natural large-scale effects over the desert overwhelm local man-made dust-producing conditions. Such events, which occur approximately 10 to 15 days per year, are considered "exceptional events" by EPA, and are excluded from violation status determinations.

3.10.3 Current Regulatory Status in Coachella Valley

In November 1990, amendments to the federal Clean Air Act were signed into law, setting into motion new statutory requirements for attaining federal National Ambient Air Quality Standards for PM₁₀. All areas in the United States that were previously designated as federal non-attainment areas for PM₁₀, including the Coachella Valley, were initially designated as "moderate" PM₁₀ non-attainment areas. Under Section 189(a) of the Clean Air Act, revisions to the State Implementation Plans for PM₁₀ were due by November 15, 1991, incorporating

"reasonably available control measures" for PM10 and indicating an attainment date. In response to these requirements, the South Coast Air Quality Management District adopted the "State Implementation Plan for PM10 in the Coachella Valley" (1990 CVSIP) in November 1990. The 1990 CVSIP identified candidate control measures and demonstrated attainment of the NAAQS for PM10 by the year 1995, one year after the statutory limit for moderate non-attainment areas. The Clean Air Act, Section 188(b) specifies that any area that cannot attain the standards by December 1994 would subsequently be re-designated as a "serious" non-attainment area.

In January 1993, the U.S. Environmental Protection Agency completed its initial re-designation process, and included the Coachella Valley among five nationwide areas re-designated as "serious" effective February 8, 1993. Section 189(b) of the Clean Air Act further specifies that a State Implementation Plan revision is due within 18 months of the re-designation (August 8, 1994). The revision must assure that "best available control measures" will be implemented and a demonstration of attainment will be submitted within four years of the re-designation date (February 8, 1997). In response to the Clean Air Act requirements for "serious areas", the South Coast Air Quality Management District prepared a State Implementation Plan revision (1994 CVSIP) that identified candidate "best available control measures" for implementation prior to February 8, 1997.

The Clean Air Act also allows an extension of the attainment date for up to five years provided that: (1) all previous state implementation plan (SIP) commitments have been implemented; (2) a demonstration that attainment by 2001 is not practicable; (3) documentation that all feasible Most Stringent Measures (MSM) are being implemented; and (4) a demonstration that the expected attainment date is the most expeditious date practicable.

Section 107 (d)(3)(E) of the Clean Air Act states that an area can be re-designated to attainment if, among other requirements, the U.S. Environmental Protection Agency (EPA) determines that the National Ambient Air Quality Standards have been attained. The EPA guidance further states that a determination of compliance with the National Ambient Air Quality Standards must be based on three complete, consecutive calendar years of quality-assured air quality monitoring data. In applying U.S. EPA's Natural Events Policy, the 1996 Coachella Valley State Implementation Plan determined that the Coachella Valley had not violated either the 24-hour or annual average PM10 standards during the three calendar years 1993 through 1995. Accordingly, the South Coast Air Quality Management District requested a re-designation of the Coachella Valley to attainment for PM10.

From 1999 through 2001, however, PM10 dust levels rose sufficiently to exceed the annual average PM10 standard of 50 g/m^3 , and standards for ozone. The Indio monitoring site exceeded the PM10 annual average standard from 1999 to 2001. Palm Springs, on the other hand, is within both standards. Special monitoring at other sites confirmed that PM10 standards are exceeded throughout Coachella Valley. The region continues to be designated a "serious" non-attainment area for PM10. Should the region continue to fall short of federal PM10 standards, the U.S. EPA could impose more stringent regulations or sanctions on local jurisdictions.

In an effort to remedy this situation, the South Coast Air Quality Management District developed "Guidelines for Dust Control Plan Review in the Coachella Valley" (2001) which are intended to supplement local dust control ordinances. A State Implementation Plan, the draft Coachella Valley PM10 Non-attainment Area Maintenance Plan (2002), has been prepared for the planning area which identifies sources of PM10 and control measures to reduce emissions. There also are a set of rules (400 series) designed to limit area and point source particulate emissions and fugitive dust in the Coachella Valley. In developing an air quality management strategy to meet State and Federal standards on public lands, the BLM took into consideration

guidelines, rules and State Implementation Plans prepared by the South Coast Air Quality Management District. A description of the BLM's air quality management strategy, and measures embodied in the 2002 State Coachella Valley Implementation Plan are provided in Appendix C.

3.10.4 Morongo Valley Portion of the CDCA Planning Area

The Morongo Valley portion of the CDCA Plan Amendment area, which is located in San Bernardino County, falls under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). Like the Coachella Valley, this region is currently designated a “nonattainment area” under state and federal ozone and PM₁₀ ambient air quality standards.¹⁰ These designations include a “severe-17” classification for federal ozone standards under the Clean Air Act, which means the region must come into compliance with federal ozone standards by November 15, 2007 (17 years from the date the federal Clean Air Act was enacted). The region is designated an “attainment area” for all other criteria pollutants, including carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead.

PM₁₀ violations throughout the Mojave Desert Air Basin are primarily attributed to heavy fugitive dust sources in and around urbanized areas and dust generated from large-scale high wind events.¹¹ Major dust sources in urbanized areas include unpaved road travel, off-highway vehicle use, wind erosion of unpaved roads and disturbed soils, and construction and demolition activity. In an effort to bring the region into compliance with federal PM₁₀ standards, the MDAQMD adopted a “Federal Particulate Matter Attainment Plan” in 1995, which sets forth a control strategy plan for the entire District. The strategy is aimed at reducing fugitive dust emissions from unpaved road travel, construction/demolition activities, disturbed areas, and industrial activities. All development in the District must comply with the provisions of this Plan and other applicable MDAQMD emissions requirements.

¹⁰ “California Environmental Quality Act and Federal Conformity Guidelines,” Mojave Desert Air Quality Management District and Antelope Valley Air Quality Management District, December 1999.

¹¹ “Mojave Desert Planning Area Federal Particulate Matter (PM₁₀) Attainment Plan,” Mojave Desert Air Quality Management Plan, July 31, 1995.

3.11 Noise

Noise has long been accepted as a byproduct of urbanization, but only recently has it received much social attention as a potential environmental hazard. Excessive and/or sustained noise can contribute to both temporary and permanent physical impairments, such as hearing loss and increased fatigue, as well as stress, annoyance, anxiety, and other psychological reactions in humans.

The most common unit used to measure noise levels is the A-weighted decibel (dBA), which is a measurement of the noise energy emitted from a monitored noise source. The A-weighted frequency scale has been adjusted to correlate noise or sound to the hearing range of the human ear, and ranges from 1.0 dBA at the threshold of hearing, to 140 dBA at the threshold of pain.

The existing noise environment in the planning area varies depending upon location, but ranges from very quiet in remote, wilderness areas to moderate on or adjacent to urban lands. The noise environment in the urban core of the Coachella Valley, which generally extends from Desert Hot Springs and Palm Springs on the west to Indio and Coachella on the east, is consistent with that of a low to medium-density, suburban community.

Motor Vehicle Noise. Noise monitoring and modeling data conducted within the planning area indicate that the primary noise source is motor vehicle traffic on highways and major arterials. The level of noise generated varies with traffic volume, vehicular speed, truck mix, and roadway cross-section and geometric design. Typically, the greater the vehicle speed and truck mix, the greater the level of noise.

Among the roadways producing the highest noise levels in the planning area are Interstate-10 and State Highway 111. These highways pass through or in close proximity to BLM land only in limited locations, including east of Indio and in the San Geronio Pass area. Traffic along State Highways 74 and 62, which pass through BLM land in the Santa Rosa Mountains and the Morongo Valley, respectively, generate moderate noise levels during daytime hours, but these levels are expected to drop considerably at night. Most BLM lands are remote and distant from major highways and arterials. Occasional noise from motor vehicle traffic may be generated on access roads; however, noise levels are extremely limited due to very low traffic volumes and speeds.

Railroad Traffic Noise. Railroad traffic constitutes an occasional, but less intrusive element to the noise environment. The passage of trains results in considerable noise impacts to adjacent lands, although the impacts are periodic and of short duration. Railroad tracks extend along the central axis of the Coachella Valley in a northwest-southeasterly direction. The tracks run parallel with and just south of Interstate-10 through much of the valley, and extend southeast along State Highway 111 from Indio to Imperial County. These facilities carry between 30 and 40 trains per day. Most rail activity is freight traffic operated by Union Pacific Railroad, although Amtrak provides passenger service along the same tracks to Palm Springs and Indio. Union Pacific is planning to add a full second track, parallel to the existing one, between 2001 and 2003, and is anticipating a 50% to 75% increase in regional rail traffic. This increase will further impact the noise environment on adjacent lands.

These tracks cross through BLM land in the western Coachella Valley, in the Garnet/Indian Avenue vicinity north of Palm Springs. Noise measurements conducted in this vicinity for the Palm Springs General Plan (1993) place the 60 dB CNEL contour 1,050 feet from the railroad tracks, the 65 CNEL contour 570 feet from the tracks, and the 70 CNEL contour 310 feet from the tracks.¹²

¹² "City of Palm Springs General Plan," Smith, Peroni & Fox, adopted March 3, 1993.

Aircraft Noise. Overflights associated with the Palm Springs, Bermuda Dunes, and Desert Resorts Regional Airports also generate occasional, but intrusive noise impacts in the planning area. However, neither of these facilities is located on or in close proximity to public BLM lands, and noise associated with airport operations does not adversely affect BLM lands.

Stationary Source Noise. Stationary noise sources in the CDCA planning area include grading and construction activity, power tools, household appliances, high-level radio and/or television usage, and mechanical equipment, such as heating and air conditioning units. Noise from roof-mounted equipment, such as fans and compressors, which emit a constant hum, can penetrate adjacent property and adversely affect the quality of life in residential neighborhoods. Industrial noise generated at loading and transfer areas, outdoor warehousing operations, and unscreened commercial or industrial activities, can also result in objectionable noise levels.

Outlying, remote BLM land, including large-scale open space and wilderness areas, is virtually free from stationary noise intrusion. Such areas include undeveloped land in the Indio Hills, Mecca Hills, and San Jacinto, Santa Rosa, San Bernardino, Little San Bernardino, and Orocopia Mountains. Developed BLM lands and those in close proximity to urban development may be subject to low to moderate noise levels.

Wind Turbine Noise. Wind Energy Conversion Systems (WECS) have been constructed on BLM-administered land in the western Coachella Valley. Wind turbine noise varies based on the turbine model and design specifications, including the age, height, and tower damping features of each turbine. Environmental factors, including intervening terrain, vegetation, wind speed and direction, and distance and elevational offsets between the turbine and the noise receptor, also affect ambient noise levels.

Wind turbines generate two types of noise: mechanical and aerodynamic. Mechanical noise is associated with the basic operating components of the turbine, including gearboxes and wheels. Improvements in technology and engineering have virtually eliminated mechanical noise from modern wind turbines, particularly those manufactured after the early 1980s. Aerodynamic noise is best described as the “swish” sound generated by the rotation of rotor blades; the higher the rotational speed, the louder the sound. Turbine manufacturers have minimized aerodynamic noise in recent years by smoothing blade surfaces, carefully designing blade edges and rotor tips, and assuring blades are not damaged during turbine installation. Vibrations have been reduced on some larger turbines by drilling holes into the chassis frame to ensure that the frame does not vibrate in step with other turbine components.

Riverside County has adopted a WECS ordinance (County Municipal Code Section 17.224.040L) that requires the projected wind turbine noise level at each nearby sensitive receptor (habitable dwelling, hospital, school, library, or nursing home) to be at or below 55 dB(A); this level shall be reduced by 5 dB(A) where it is projected that pure tone noise will be generated. BLM utilizes the same standard for WECS development occurring on BLM lands. BLM requires each turbine developer to prepare a noise study demonstrating that the project will meet this standard. In most cases, the distance between the wind turbines and the nearest sensitive receptors is great enough that operational noise impacts are not considered significant.

Two recent acoustical analyses prepared for proposed WECS projects on BLM lands in the San Geronio Pass area indicate that wind turbine noise in this vicinity does not exceed County/BLM accepted noise levels. One project involved the construction of thirty-two 1.5-megawatt (mw) turbines and three 750-kilowatt (kW) turbines on County and BLM lands immediately west of Whitewater Hill. The study concluded that noise impacts on the nearest sensitive receptors, residences located approximately 1,600 feet from the proposed turbines,

would be well below the 55 dB(A) standard (Hersh Walker Acoustics, May 8, 2001).¹³ A second project involved the construction of twenty 1.5-mw and four 660-kw turbines in the same geographic area. The acoustical study demonstrated that noise generated by the turbines would not exceed the County/BLM threshold of 55 dB(A) at the outer perimeter property line or the nearest sensitive receptors (Hersh Walker Acoustics, January 4, 2001).¹⁴

¹³ "Acoustical Analysis Report, Noise Impact Analysis, Commercial WECS Permits 108 and BLM Grants, Section 12, T3S, R3E, Riverside County, CA," Hersh Walker Acoustics, May 8, 2001.

¹⁴ "Environmental Assessment (EA) #01-35, Right-of-Way Grant CA-9755 San Geronio Farms," U.S. Department of the Interior, Bureau of Land Management, Palm Springs-South Coast Field Office, October 29, 2001.

3.12 Hazardous Materials and Toxic Wastes

The manufacture, transport, and disposal of hazardous and toxic wastes have become a progressively important issue, especially in desert areas where potential impacts are erroneously considered to be less than in other areas. Regulation of toxic and hazardous materials lies with a variety of federal, state, and local agencies, including the U.S. Environmental Protection Agency, the California Office of Health Planning and Development, and county health departments. Applicable federal regulations include the Resources Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Safe Drinking Water Act (SDWA), the Federal Clean Air Act and the Toxic Substances Control Act.

Counties are authorized by state law to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous materials and waste products. In the CDCA planning area, the California Regional Water Quality Control Board (CRWQCB) and area water districts maintains information concerning contaminated water wells and groundwater. The state and federal Environmental Protection Agencies (EPA) and the State Department of Health also provide information concerning specific hazardous waste sites.

There are no large industrial or commercial users of hazardous materials in the planning area or area of influence, although there are identified hazardous/toxic material small quantity generators are associated with commercial, industrial and medical operations. These have the potential to be associated with accidental spills, purposeful illegal dumping, air emissions, and other uncontrolled discharges into the environment. Improper use and management of these materials pose a significant potential threat to the environment.

Products, chemical and purified chemical compounds, and elements that are considered hazardous or toxic exist in wide variety and are used in households, commercial businesses and industrial operations and processes. They range through home and pool related chlorine products, chemical fertilizers, herbicides and pesticides, stored fuels and waste oil, chemical solvents and lubricants, and a variety of medical materials, including biological and radioactive wastes.

Hazardous Waste Management Plans. Jurisdictions responsible for land management coordinate with appropriate county, state and federal agencies in the identification of hazardous material sites, and their timely cleanup. In order to manage these issues, the jurisdiction may establish and maintain information on these sites, and periodically monitor facilities and operations that produce, utilize or store hazardous materials. By staying involved in multi-agency monitoring of illegal dumping in the BLM, conferring in the regulation of underground storage tanks and septic systems, and regulating the transport of hazardous materials through the CDCA planning area, the BLM can better protect against potential hazards associated with hazardous materials and wastes.

The BLM coordinates and cooperates with Riverside County in addressing illegal use and/or dumping of hazardous and toxic materials on public lands. The Riverside County HWMP was adopted by the Board of Supervisors and approved by the California Department of Health Services in 1990. The County HWMP identifies the types and amounts of wastes generated in the County and established programs for managing these wastes. The Riverside County HWMP also assures that adequate treatment and disposal capacity is available to manage hazardous wastes generated within its jurisdiction, and addresses issues related to manufacture and use.

The state and federal Environmental Protection Agencies (EPA) and the State Department of Health also supply information concerning specific hazardous waste sites and their locations. The California Department of Industrial Relations, Cal-OSHA Division, regulates the proper use of hazardous materials in industrial settings. Private database screening and documentation services are also available, which will search, extract, and summarize reports on contaminated site recorded in various state and federal databases.

Household Hazardous Waste. Residential use of household chemicals, automobile batteries, used oil, paint and similar materials result in hazardous waste. "ABOP" (Antifreeze, Batteries, Oil and Latex Paint) disposal sites are available for planning area residents to dispose of these materials. These facilities will take up to 5 gallons or 50 pounds of materials per trip, and all materials must be clearly marked and sealed. Local residents may also properly dispose of used motor oil through a variety of local programs, including curbside pick up. Riverside County also organizes Household Hazardous Waste collection days throughout the year at fire stations and city corporation yards across the valley.

Hazardous Materials Response. Hazardous and toxic materials are determined critical by county health departments, which can require owners of storage facilities to test, temporarily close and/or remove all hazardous liquids, solids or sludge located on the site. Leaking underground storage tanks must be removed by contractors having Hazardous Waste Certification and a General Engineering license. Between cessation of storage and actual closure, monitoring is generally required by the site's operating permit. When soils contamination is detected, the clean up procedure to be followed, the degree or level of cleanliness required by the regulator, and the method of treatment (if permitted) will be directed by the county hazardous materials division and/or the Regional Water Quality Control Board.

3.13 Visual and Scenic Resources

The CDCA planning area is distinguished by its unique arrangement of low-lying desert landscape and high terrain of the San Jacinto, San Bernardino, Little San Bernardino and Santa Rosa Mountains. These contrasting viewsheds result in an exceptional display of open space and mountain scenery that enhance the aesthetic quality of the area. The mountainous portions of the planning area are comprised of highly differential rock formations, large expanses of light gray granite, and a diversity of vegetation, including live oak and towering pines. Views of the mountain ranges that ring much of the planning area, in particular, are highly valued.

The two highest peaks associated with the region are San Jacinto Peak in the San Jacinto Mountains, which rises to an elevation of 10,804 feet, and San Gorgonio Peak in the San Bernardino Mountains, with an elevation of 11,502 feet. The rise of Mt. San Jacinto, from the desert floor to the peak, is the steepest gradient in North America. The Santa Rosa Mountains extend through the southwest portion of the planning area. The highest peaks in the Santa Rosa Mountains include Toro Peak at 8,717 and Santa Rosa Peak at about 8,000 feet. To the north and northeast of the subject property are the Indio Hills, with elevations rising to about 1,600 feet.

The lower elevations of the CDCA planning area include numerous alluvial fans and cone, which form at the mouth of the many canyons draining the area mountains. These expansive deposition areas form an important and visually interesting transition between the foothills and mountains, and the valley floor. The alluvial fans also are comprised of washes and braided streams that support important habitat and diverse visual character.

The valley floor is comprised of a mix of sand dunes, sand fields and more limited areas of desert pavement swept clear of sand. Dunes and sand fields are archetypal desert visual resources with high visual resource value. In many areas, they are enhanced by the presence of mesquite hummocks that provide a vivid contrast of green against the light color of expanses of sand. In the spring, the dunes and sand fields are also frequently covered with a profusion of annual plants, including sand verbena and mallow.

In the central portion of the valley, the Indio and Mecca Hills have been uplifted by compressive forces associated with the San Andreas Fault Zone, which passes through the long northwest – southeast axis of the Coachella Valley. Along the fault zone, fault dikes have blocked and impounded the movement of ground water. This has resulted in the emergence of numerous groves of native desert fan palms (*Washingtonia filifera*) and associated mesquite and other vegetation, which also provide a unique and high value visual resource.

The lowest portions of the planning area are also a result of tectonic forces associated with the San Andreas Fault Zone. The Coachella valley is the northwestern extension of a fault-controlled spreading zone, which extends from the Gulf of Mexico. The spreading and subsidence has created a terminal lake, the Salton Sea, which has no outlet and currently stands at a surface elevation of $228 \pm$ feet below mean sea level.

The Federal Land Policy and Management Act of 1976 (FLPMA) requires BLM to protect the quality of scenic values on public lands (43 USC 1701). BLM has developed an analytical process that identifies, sets, and meets objectives for maintaining scenic values and visual quality. The Visual Resource Management (VRM) system functions in two ways. First, BLM conducts an inventory that evaluates visual resources on all lands under its jurisdiction (Inventory/Evaluation). Once inventoried and analyzed, lands are given relative visual ratings (Management Classifications). Class designations are derived from an analysis of Scenic Quality (rated by landform, vegetation, water, color, influence of adjacent scenery, scarcity,

and cultural modification), a determination of Viewer Sensitivity Levels (sensitivity of people to changes in the landscape), and Distance Zones (visual quality of a landscape, as well as user reaction, may be magnified or diminished by the visibility of the landscape). Management Classes describe the different degrees of modification allowed to the basic elements of the landscape (form, line, color, texture).

Second, when a site specific project is proposed, the degree of contrast between the proposed activity and the existing landscape is measured (Contrast Rating). The Contrast Rating process compares the proposed activity with existing conditions element by element (form, line, color, texture) and feature by feature (land/water surface, vegetation, structures). The Contrast Rating is compared to the appropriate Management Class to determine if contrasts are acceptable. If the proposed project exceeds the allowable contrast, a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts. The VRM Management Class Objectives are defined as follows:

Class 1: Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to wilderness areas, wild and scenic rivers, and other similar situations.

Class 2: Changes in any of the basic elements caused by management activity should not be evident in the characteristic landscape. Contrasts are visible, but must not attract attention.

Class 3: Changes to the basic elements caused by management activity may be evident, but should remain subordinate to existing landscape.

Class 4: Any contrast may attract attention and be a dominant feature of the landscape in terms of scale, but it should repeat the form, line, color, and texture of the characteristic landscape.

Class 5: This classification is applied to areas where natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications.

3.14 Utilities/ Public Services and Facilities

Public services and facilities in the CDCA planning area are provided by a number of public and quasi-public agencies, which ensure a coordinated system of services for residents and businesses. These various services are described below.

Given that most BLM parcels in the planning area are remote and undeveloped, they are not typically connected to public utilities, nor do they receive public services from outside agencies. However, some parcels are traversed by utility rights-of-way used for electric, natural gas, and supplemental water transmissions, as described below.

Domestic Water. Although development in outlying areas of the Coachella Valley relies upon privately owned, on-site wells for the delivery of potable water, most development is connected to a public or quasi-public water delivery system. Domestic water services are provided to the valley by a number of agencies, which extract groundwater from deep wells and convey it to homes and businesses through extensive systems of distribution pipelines. Supplemental Colorado River water is imported to the region via the Metropolitan Water District's Colorado River Aqueduct. This facility traverses the Coachella Valley at or near the base of the Little San Bernardino Mountains and crosses directly through scattered BLM lands, including those in the southern portion of the Big Morongo Canyon ACEC. The aqueduct, which transports water from Parker Dam, is constructed just below the ground surface and includes siphons which allow for the passage of vehicles and stormwater across the surface.

The Coachella Valley Water District (CVWD) is the principal domestic water provider serving the Coachella Valley. Other purveyors include the Mission Springs Water District (MSWD), Desert Water Agency (DWA), Myoma Dunes Mutual Water Company, and the cities of Indio and Coachella, which own and operate their own municipal water delivery systems. San Bernardino County and the Southern California Water Company provide domestic water to the Morongo Valley community. The Anza-Borrego portion of the planning area contains little development, which relies upon on-site wells.

Wastewater Collection and Treatment. Sewage collection and treatment services are provided throughout the Coachella Valley by several agencies, including CVWD, DWA, MSWD, the City of Palm Springs, and the City of Coachella. Although most urbanized areas within the Coachella Valley are connected to coordinated wastewater treatment systems, many homes and businesses continue to rely upon on-site septic systems for the treatment of effluent. Most unsewered sites are located in outlying areas of the valley, such as Sky Valley and remote areas of Desert Hot Springs, where the demand for services is relatively low. However, a substantial number of unsewered sites are located within the central, urbanized portion of the valley, including the Cathedral Canyon Cove neighborhood in Cathedral City and scattered development in Bermuda Dunes. No community sewer systems have been constructed in the Morongo Valley or Anza-Borrego portions of the CDCA planning area; residents rely on on-lot septic systems.

Electric Service. Southern California Edison (SCE) is the primary electric service provider for the western Coachella Valley, while the Imperial Irrigation District (IID) serves the central and eastern portions of the valley. High-voltage (up to 500 kilovolt) transmission lines pass through the Coachella Valley within an east-west trending utility corridor located north of and roughly parallel to Interstate-10. This corridor passes directly through scattered BLM parcels in several locations throughout the valley, including east of Indio, within the San Geronio Pass area, and in the Coachella Valley Preserve in the central valley.

Natural Gas. The Southern California Gas Company provides natural gas services to much of the planning area. Most development in the central, urbanized core of the Coachella Valley is connected to the natural gas distribution system. Rural, outlying areas and some isolated pockets of development are not connected, given the tremendous costs associated with expanding the necessary infrastructure. The natural gas pipeline originates in Texas and crosses the valley through an east-west trending utility corridor just north of Interstate-10. The pipelines include one 30-inch line and two 24-inch lines, with pressures of 2,000 pounds per square inch (psi). This utility corridor passes directly through scattered BLM parcels of land, including several east of Indio, within the San Geronio Pass area, and in the vicinity of the Coachella Valley Preserve.

Telephone Service. Verizon (formerly GTE) provides a wide range of residential and business telephone services to the CDCA planning area. The backbone of Verizon's communications network consists of central switching offices, which facilitate the connection of telephone and data transmissions. Numerous central switching offices are located throughout the region.

Cable Television. The Coachella Valley's largest cable television service provider is Time Warner, whose coverage area extends from Palm Springs to Coachella. Desert Hot Springs Cablevision provides services to the City of Desert Hot Springs and a portion of Sky Valley. Kountry Kable provides services to the communities of Mecca and Thermal.

Solid Waste Management. The largest provider of solid waste management services in the Coachella Valley is Waste Management of the Desert, whose coverage area generally extends from Cathedral City to North Shore. Waste Management also serves the Morongo Valley portion of the planning area. The cities of Palm Springs and Desert Hot Springs contract with Palm Springs/Desert Valley Disposal for solid waste management and disposal services. Most cities in the valley have implemented a comprehensive recycling program, which has proven beneficial to the preservation of landfill space, and energy and other finite resources used in materials production. Most green waste collected in the valley is recycled at the BioMass facility in Thermal, while other recyclables are transported to a recycling company in Los Angeles. Several privately operated recycling facilities are located within the Coachella Valley.

Most of the solid waste generated in the Coachella Valley is disposed of at the Edom Hill Landfill, located at the westerly extension of the Indio Hills. However, this facility is nearing its maximum capacity, and its anticipated closure date is 2004. A limited amount of waste collected in the easterly Coachella Valley is disposed of at the Mecca Landfill. The projected closure date for the Mecca Landfill is 2011; however, this date may change depending upon future levels of waste generation and demands for landfill space. Residential and commercial waste collected in the City of Cathedral City is transported by truck to the Copper Mountain Landfill in Wellton, Arizona.

Public Schools. Public education services and facilities in the Coachella Valley are provided by the Palm Springs Unified School District, Desert Sands Unified School District, and Coachella Valley Unified School District. The Morongo Valley Unified School District serves the Morongo Valley portion of the planning area, and the Hemet Unified School District serves the Anza-Borrego portion. Additional educational opportunities are offered at numerous private schools throughout the planning area.

Libraries. The principal provider of library services in the CDCA planning area is the Riverside County Library System, a network of public libraries serving Riverside County residents. The Cities of Palm Springs and Rancho Mirage operate their own municipal libraries, independent of the County Library System. The County of San Bernardino provides public library services to the Morongo Valley portion of the planning area.

Fire Protection. BLM provides its own fire suppression services on BLM-administered lands and contracts with the California Department of Forestry for fire suppression in mountainous areas. The Riverside County Fire Department operates approximately 22 fire stations in the Coachella Valley and provides fire suppression and prevention, emergency medical response, hazardous materials response, fire investigations, and other related services to most communities in the valley, as well as the Anza-Borrego portion of the planning area. The cities of Palm Springs and Cathedral City operate their own municipal fire departments. Fire protection services in the Morongo Valley portion of the planning area are provided through a Community Services District (CSD), an independent district formed by the County Board of Supervisors and tailored to meet the needs of the local community. However, fires occurring within State Response Areas (SRAs), which include large vegetated areas, are the responsibility of the California Department of Forestry, and fires occurring within the San Bernardino National Forest are the responsibility of the U.S Forest Service.

Police Protection. With the passage of the Federal Land Policy and Management Act of 1976, Congress granted BLM its statutory law enforcement authority. BLM law enforcement rangers provide a wide range of services on BLM lands, including providing security at recreation sites, protecting important cultural sites from vandalism, assisting local authorities with search and rescue operations, and guarding against the dumping of hazardous and other pollutants. For additional support, BLM maintains a mutual aid agreement with the Riverside County Sheriff's Department.

The following Coachella Valley cities contract with the Riverside County Sheriff's Department for police protection services: Rancho Mirage, Palm Desert, Indian Wells, La Quinta, and Coachella. In addition, the Sheriff's Department provides protection to unincorporated County lands throughout the CDCA planning area, including the Anza-Borrego area. The cities of Desert Hot Springs, Palm Springs, Cathedral City, and Indio maintain their own municipal police departments. The San Bernardino County Sheriff's Department serves the Morongo Valley portion of the planning area.

3.15 Socio-Economic Considerations

The CDCA planning area occurs in a region which has positioned itself as one of the premier destination resort areas in the country. Although most BLM lands in the planning area are remote and uninhabited, they offer a broad range of economic opportunities for the local population, including eco-tourism, mineral and energy leases, and utility rights-of-way.

3.15.1 Regional Economy and Demographics

Population. The population of the CDCA planning area has grown rapidly over the past two decades. As described in the table below, the regional population more than doubled during the 1980s, from 91,124 to 194,718. During the 1990s, the population grew to 274,470, which represents a 10-year gain of 79,752 or 41%.

Table 3-10: Population Trends for the CDCA Planning Area, 1980-2000

City/Place	Population		
	1980	1990	2000
Cathedral City	N/A ¹	30085	42647
Coachella	9129	16896	22724
Desert Hot Springs	5941	11668	16582
Indian Wells	1394	2647	3816
Indio	21611	36793	49116
La Quinta	3328	11215	23694
Palm Desert	11081	23252	41155
Palm Springs	32359	40181	42807
Rancho Mirage	6281	9778	13249
Bermuda Dunes	N/A ²	4571	6229
Mecca	N/A ²	1966	5402
Morongo Valley	N/A ²	1544	1929
Thousand Palms	N/A ²	4122	5.12
TOTAL	91124	194718	274470
1 Cathedral City was not incorporated until 1981 2 Data not tabulated in 1980 Source: U.S. Census Bureau, Census 1980, 1990, 2000			

The Coachella Valley population is expected to continue to grow rapidly over the next two decades. The Southern California Association of Governments (SCAG) forecasts that the population will reach approximately 440,301 by year 2010, and 540,901 by year 2020.¹⁵

¹⁵ Southern California Association of Governments, letter correspondence to City of La Quinta, May 23, 2001.

Median Age. In 2000, the median age of residents living in the CDCA planning area ranged from a low of 22.6 in Mecca, to a high of 63.4 in Indian Wells.¹⁶ This wide range of ages is representative of the valley's diverse population, which includes students, young families, middle-aged professionals, retirees and seniors.

Race and Ethnicity. The CDCA planning area is primarily Caucasian, with approximately 68.4% of residents in the region classifying themselves as "white." However, nearly half (44.5%) of the population identifies itself as Hispanic or Latino, of any race. The table below describes the region's racial/ethnic composition, according to the 2000 U.S. Census.

Table 3-11: Ethnicity in the CDCA Planning Area, 2000

Race	Population	
	Total No.	Percent
White	187839	68.4
Black or African American	6480	2.4
American Indian/ Native Alaskan	2339	0.9
Asian	6333	2.3
Native Hawaiian/ Pacific Islander	259	0.09
Some Other Race	61980	22.6
Two or More Races	9240	3.4
TOTAL	274470	100
Hispanic/Latino (of any race)	122226	44.5
1 Difference due to rounding Note: Table includes combined data for nine incorporated cities and four unincorporated communities in the CDCA planning area. Source: U.S. Census Bureau, Census 2000		

Households.¹⁷ In 2000, there were approximately 101,871 households in the CDCA planning area. Average household sizes ranged from a low of 1.92 persons per household in Rancho Mirage, to a high of 5.04 in Mecca. This indicates that the region contains a wide variety of family units, ranging from singles and couples to large, extended families.

Employment and Income. According to the California Employment Development Department, the number of jobs in the Coachella Valley increased from 74,146 in 1991, to 100,231 in 1999. This represents a gain of 26,085 jobs or 35.2% over the eight-year period.¹⁸ The region's largest employment sectors are retail trade, agriculture, and hotel and amusement. Other growing industries include construction, business services, and distribution and transport services.

Median household incomes in the region have risen steadily over the past decade. In 1990, they ranged from a low of \$20,687 in Desert Hot Springs, to a high of \$87,942 in Indian Wells. By 1998, the range increased from \$29,555 in Desert Hot Springs to \$125,642 in Indian Wells. These data suggest a wide variation in residents' economic situations and expendable incomes.

¹⁶ U.S. Census Bureau, Census 2000.

¹⁷ Ibid.

¹⁸ California Employment Development Department data, as provided in "Coachella Valley Economic Review," John E. Husing, Ph.D., July 22, 2000.

Historic Overview of Regional Economy. Agriculture was the Coachella Valley's dominant industry during the first half of the twentieth century. The region's main staple, the date palm, was introduced around the turn of the century by the U.S. Department of Agriculture, and the industry soon expanded to include the cultivation of grapes, citrus, and other fruit and vegetable crops.

As early as the 1920s, however, hotels, restaurants, country clubs, and casinos began to emerge in the upper Coachella Valley, especially in the Palm Springs and Cathedral City areas. Equestrian camps and resort hotels, including the historic La Quinta Hotel, were constructed in the lower valley. By the 1930s, the character of the region had been transformed toward the budding resort industry, with the marketing and construction of weekend homes throughout the valley. A new era of development emerged during the post-World War II era, giving the region its predominant image as a destination resort community.

Over the past three decades, the Coachella Valley has expanded to become one of the premier destination resort areas in the country. Today, it is characterized by high quality hotels, convention facilities, spas, and planned residential golf course developments. Approximately 3 million (overnight) visitors come to the Coachella Valley annually, and tourism has an estimated \$1.5 million annual economic impact on the region.¹⁹

3.15.2 Socio-Economic Issues Specific to BLM Lands

BLM lands within the CDCA planning area provide a variety of direct and indirect economic benefits the general economy. These include the leasing of BLM lands for such economic opportunities and activities as mineral (sand and gravel) extraction, wind energy production, utility corridors, and commercial recreational uses such as ecotourism.

The Bureau leases lands with locally important resource value, which in the planning area is limited to sand and gravel extraction. Sand and gravel have a relatively low unit value and are especially sensitive to extraction, processing and transportation costs. Making sand and gravel resources available to the local economy has significant positive impacts on a wide range of construction costs, including roads and highways, manufacture of concrete and related products, and other construction uses.

BLM lands are also an important part of wind energy development in the CDCA planning area. As discussed elsewhere in this document, wind energy is a clean, economical and renewable energy resource, which reduces air pollutant emissions, creates local jobs and still allows the land to provide wildlife habitat for a variety of sensitive species and communities. These lands also provide important local and regional rights-of-way for the transmission of electricity, water, natural gas and petroleum products, enhancing their availability and positively affecting their price structure.

Commercial ecotourism has also become a progressively more important local economic benefit, enhancing the resort industry in the planning area and providing opportunities for increased employment in "nature" industries.

Occasionally, the Bureau may enter into land exchange agreements that provide opportunities that free up appropriate public lands for expanded private economic development and optimal land use. In exchange, the Bureau and the public typically receive lands that are environmentally or ecologically important.

¹⁹ "Palm Springs Desert Resorts Fact Sheet," Palm Springs Desert Resorts Convention and Visitors Bureau, Spring 2000.

3.16 Environmental Justice and Health Risks to Children

Executive Order 12898. Environmental justice refers to the fair and equitable treatment of all individuals, regardless of race, ethnicity or income level, in the development and implementation of environmental laws and policies. In February 1994, the President of the United States signed Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which is one of the principal mechanisms used to implement environmental justice concepts at the federal level. Its fundamental objective is to require each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”²⁰

The EO was accompanied by a memorandum, which emphasized the importance of the National Environmental Policy Act (NEPA) as a means for implementing environmental justice principles. The memorandum directs federal agencies to analyze the environmental effects, including human health, economic, and social effects, of their actions where such analysis is required by NEPA.

Executive Order 13045. Executive Order (EO) 13045, entitled *Protection of Children From Environmental Health Risks and Safety Risks*, was signed by the President on April 21, 1997. It requires all federal agencies to assure that their policies, programs, activities, and standards address disproportionate health risks to children that result from environmental health or safety risks. The EO defines environmental health and safety risks as those that are attributable to products or substances the child is likely to come into contact with or ingest, such as air, food, water, soil, and products children use or are exposed to.

Implementation of EO 12898 and 13045 BLM will utilize the NEPA process to implement these Executive Orders by describing the population affected by the proposed CDCA Plan amendment (below) and addressing disproportionately high adverse impacts of the proposed action on special populations (Chapter 4).

It is important to recognize that most BLM land in the CDCA planning area is uninhabited. Very few exceptions exist where a caretaker or ranger lives on-site, such as in the case of the Big Morongo Canyon ACEC; however, such incidences are rare and isolated. Nonetheless, BLM lands do not exist in a vacuum. They are located within the broader Coachella Valley, a resort-residential community with a permanent population of approximately 275,000, and are frequently utilized by local residents and visitors alike for recreational and educational purposes. Certain parcels are also accessed by BLM staff and authorized individuals for the routine maintenance of energy/mineral leases or utility rights-of-way. The following discussion describes special populations in the Coachella Valley, as these groups are likely to utilize BLM lands in the CDCA planning area.

Minorities and Minority Populations

As shown in the table below, the majority of residents in the Coachella Valley categorize themselves as “white,” and other races represent a significantly smaller segment of the population. Minority populations are generally well integrated and dispersed geographically throughout the Coachella Valley, and there are few isolated minority neighborhoods or districts in the region.

²⁰ “Environmental Justice: Guidance Under the National Environmental Policy Act,” Council on Environmental Quality, December 10, 1997.

Table 3-12: Racial Composition of the CDCA Planning Area, 2000

	White (%)	Black or African American (%)	American Indian & Alaska Native (%)	Asian (%)	(%) Native Hawaiian & Pacific Islander	Some other race (%)	(%)Two or More Races	Hispanic/Latino (of any race) (%)
Cathedral City	65.3	2.7	1	3.7	0.1	23.1	4.1	50
Coachella	38.8	0.5	0.8	0.3	–	56.6	3	97.4
Desert Hot Springs	68.2	6.1	1.4	2	0.1	16.4	5.8	40.4
Indian Wells	96.3	0.4	0.2	1.5	0.1	0.5	1	3
Indio	48.7	2.8	1	1.5	0.1	42	3.9	75.4
La Quinta	78.5	1.4	0.7	1.9	0.1	13.9	3.5	32
Palm Desert	86.8	1.2	0.5	2.6	0.1	6.5	2.4	17.1
Palm Springs	76.3	3.9	0.9	3.8	0.1	9.8	3.1	23.7
Rancho Mirage	92.7	0.9	0.2	1.2	0.1	3.6	1.3	9.4
Bermuda Dunes	84.2	2.1	0.6	2.7	0.1	6.9	3.4	19.5
Mecca	24.1	0.1	1	0.7	–	70.7	3.4	98
Morongo Valley	91.9	0.8	1.4	0.4	0.1	3.4	2.1	9.3
Thousand Palms	74.8	0.7	0.9	0.7	0.3	19.4	3.2	43.6
Note: – represents zero or rounds to zero.					Source: U.S. Census Bureau, Census 2000			

The percentage of “Black or African Americans” ranges from 0.1% in Mecca to 6.1% in Desert Hot Springs. “American Indian and Alaskan Natives” range from a low of 0.2% in Rancho Mirage and Indian Wells, and a high of 1.4% in Desert Hot Springs and Morongo Valley. The “Asian” population ranges from 0.3% in Coachella to 3.8% in Palm Springs. “Native Hawaiians and Other Pacific Islanders” range from a low of zero (or near zero) percent in Coachella and Mecca, to a high of 0.3% in Thousand Palms. These individuals clearly represent minority populations in the region. The data indicate that they are generally dispersed geographically, but the greatest percentages live in the western portion of the Coachella Valley, including the cities of Palm Springs, Desert Hot Springs, and Cathedral City.

A substantial portion of the population identifies itself as Hispanic or Latino, of any race. Percentages range from a low of 3.0% in Indian Wells to a high of 98.0% in Mecca. The data indicate that substantially higher percentages of Hispanics/Latinos reside in the eastern valley, including the communities of Coachella, Indio, and Mecca.

Low Income Populations

As shown in the following table, the Coachella Valley population is characterized by a diverse range of incomes. Residents include young working families, middle and upper class professionals, retirees on fixed incomes, those receiving public assistance, and seasonal workers employed in the region’s agricultural and resort industries. The data indicate that the greatest percentage of persons living below the poverty level reside in the eastern portion of the Coachella Valley, specifically in the communities of Mecca and Coachella, and to a lesser extent Indio. Relatively high percentages of residents living below the poverty level are also concentrated in the northwesterly portion of the region, in Desert Hot Springs and Morongo Valley.

Table 3-13: Comparison of Income Levels in the CDCA Planning Area, 1990

	Median Household Income	Persons Living Below Poverty Level	
		Total Number	% of Population
Cathedral City	\$30,908	4046	13.6
Coachella	\$23,218	4115	24.5
Desert Hot Springs	\$20,687	2,469	21.5
Indian Wells	\$87,942	100	4
Indio	\$25,976	7652	21.2
La Quinta	\$39,572	730	6.5
Palm Desert	\$37,315	1643	7.1
Palm Springs	\$27,538	4,991	12.6
Rancho Mirage	\$45,064	728	7.6
Bermuda Dunes	\$47,195	123	2.7
Mecca	\$21,829	622	31.7
Morongo Valley	\$38,125	361	23.2
Thousand Palms	\$27,219	333	8.1
Note: Income data from the 2000 census was not available at the time of this writing Source: U.S. Census Bureau, Census 1990			

Native American Populations

As described earlier, the percentage of local residents identifying themselves as Native Americans/Alaska Natives in the 2000 Census ranges from a low of 0.2% in Rancho Mirage and Indian Wells, to a high of 1.4% in Desert Hot Springs and Morongo Valley. These individuals account for an extremely small percentage of the regional population and are generally well dispersed geographically.

However, an estimated 70,000 acres of land in the Coachella Valley region consists of Native American reservation lands. These lands include Tribal trust, allotted, and fee (privately owned) lands under the jurisdiction of the following entities: (1) **the Cabazon Band of Mission Indians in the San Geronio Pass area**, (2) the Agua Caliente Band of Cahuilla Indians in the Palm Springs, Cathedral City, and Rancho Mirage areas, (3) the Torres-Martinez Indians near the Salton Sea area, and (4) Santa Rosa Indian Reservation in the Anza Valley area. Although Indian land is not subject to the provisions of the CDCA Plan Amendment, Native Americans represent an important local population which may utilize BLM land for recreational and other purposes.

Children

Although the Coachella Valley is nationally recognized as a winter haven for retirees and other seniors, much of the valley's year-round population includes younger families with children. The following table identifies the number of persons under the age of 18 living in the CDCA planning area.

Table 3-14: Children in the CDCA Planning Area, 2000

	Persons Under Age 18	
	Total Number	% of Population
Cathedral City	13267	31.1
Coachella	9270	40.8
Desert Hot Springs	5519	33.3
Indian Wells	290	7.6
Indio	17318	35.3
La Quinta	6905	29.1
Palm Desert	7130	17.3
Palm Springs	7275	17
Rancho Mirage	1362	10.3
Bermuda Dunes	1468	23.6
Mecca	2152	39.8
Morongo Valley	486	25.2
Thousand Palms	1312	25.6
TOTAL	73754	--
Source: U.S. Census Bureau, Census 2000		

The data suggest that children are generally well distributed geographically throughout the planning area. The highest percentages reside in the eastern portion of the valley (Coachella, Mecca, and Indio) and the lowest percentages reside in the central portion of the valley (Indian Wells and Rancho Mirage).

Table 1. Summary of the data

Variable	Mean (SD)		Range
	Mean	SD	
Age	45.1	12.5	18-75
Gender	50.0	0.0	Male/Female
Education	12.5	1.5	9-16
Income	35.0	15.0	10-60
Marital status	55.0	0.0	Married/Single
Religion	50.0	0.0	Christian/Muslim
Occupation	10.0	5.0	1-15
Health status	50.0	0.0	Healthy/Sick
Smoking status	50.0	0.0	Smoker/Non-smoker
Alcohol consumption	50.0	0.0	Drinker/Non-drinker
Stress level	50.0	0.0	Low/High
Life satisfaction	50.0	0.0	Low/High
Depression score	50.0	0.0	Low/High
Overall health	50.0	0.0	Good/Bad

The data were collected from a cross-sectional survey of 1000 individuals aged 18-75 years. The survey was conducted in a large urban area and included a wide range of demographic and socio-economic variables. The data were analyzed using descriptive statistics and multivariate regression models to identify factors associated with the outcome variable.

The results of the analysis showed that age, gender, education, income, marital status, religion, occupation, health status, smoking status, alcohol consumption, stress level, life satisfaction, depression score, and overall health were all significantly associated with the outcome variable. The regression models showed that the variables explained a significant proportion of the variance in the outcome variable.

The findings of this study have important implications for public health and social policy. The results suggest that interventions aimed at improving the socio-economic and health status of the population may be effective in reducing the risk of the outcome variable.

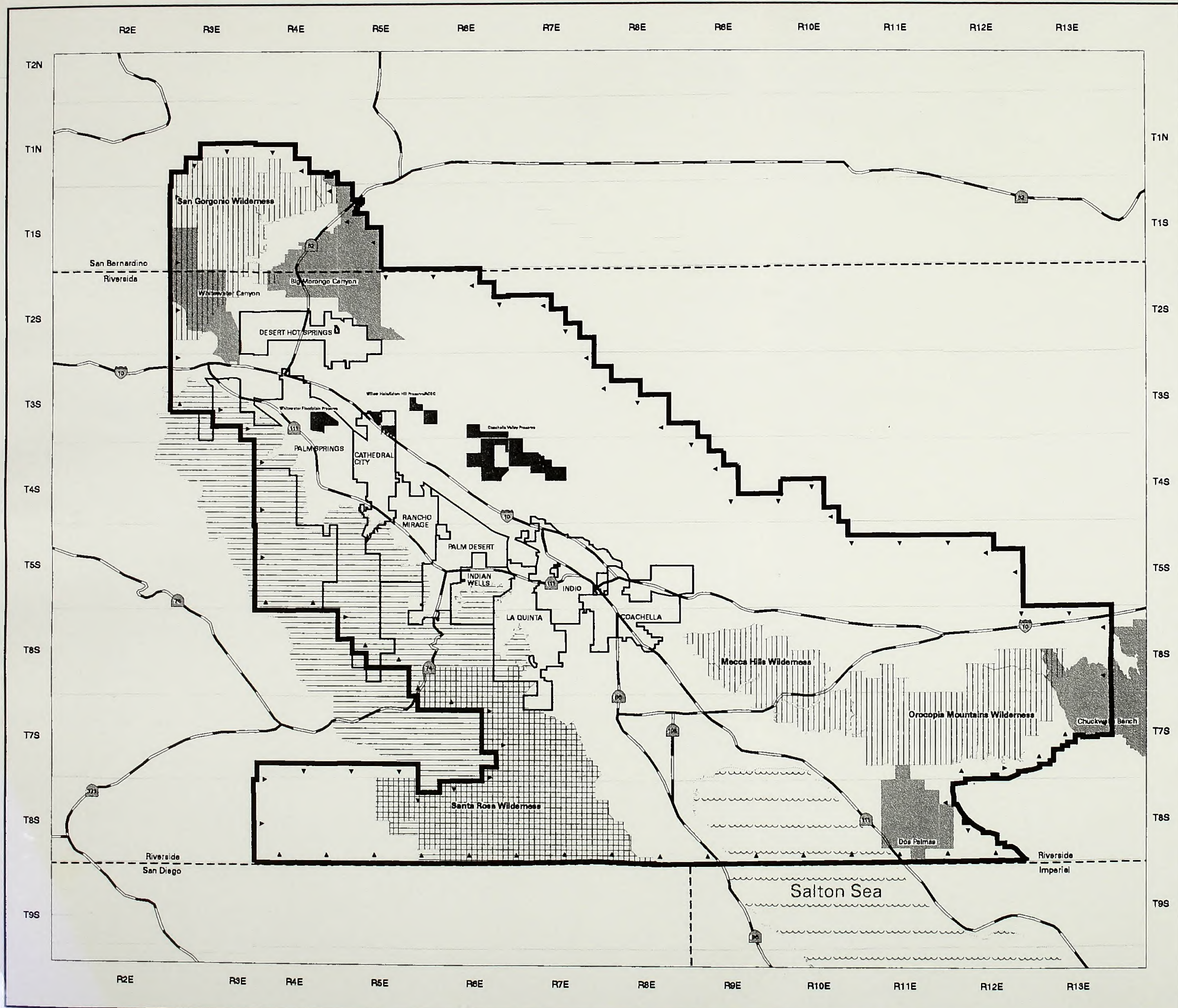


Figure 3-1
Existing Special Area
Designations

- Legend**
- Areas of Critical Environmental Concern
 - Coachella Valley Preserve System
 - Santa Rosa and San Jacinto Mountains National Monument
 - Wilderness Boundaries
 - California Desert Conservation Area Plan Amendment for the Coachella Valley
 - Coachella Valley MSHCP Boundary
 - City Boundaries
 - County Boundaries
 - Township & Range
 - Major Highways

Data Sources: US Geological Service
 Bureau of Land Management
 Riverside County
 Coachella Valley Association of Governments
 Southern California Association of Governments
 Thomas Brothers

Data Current as of 5/7/2002

Scale
1:425,000

Miles

Date: May 29, 2002

4.0 ENVIRONMENTAL CONSEQUENCES

This chapter addresses the direct, indirect and cumulative impacts on elements of the human environment from actions proposed in the CDCA Plan Amendment and the Trails Management Plan, separately. This chapter is organized by environmental element, followed by a description and comparison of impacts from the relevant plan element alternatives.

4.1 Coachella Valley California Desert Conservation Area Plan Amendment

Land use plans, such as the CDCA Plan Amendment, developed in accordance with Title 43 Code of Federal Regulations, provide landscape level decisions for managing the BLM-administered public lands. As a result, the impact analysis for land use plans level actions tend to be cumulative by nature.

4.1.1 Land Use Designations

This section describes impacts to the following special area designations: areas of critical environmental concern (ACEC), Wild and Scenic Rivers, wilderness areas, farmlands, livestock grazing, and wild horse and burro management areas.

4.1.1.1 Areas of Critical Environmental Concern

Preferred Alternative (A). No new ACECs would be designated under this alternative. BLM-managed lands within the CVMSHCP conservation area would be designated as a Wildlife Habitat Management Area (23,631 acres). The Wildlife Habitat Management Area designation itself would have no direct impact on the resources or allowable uses within that area. The allowable uses within the Wildlife Habitat Management Area and resultant impact on resources contained therein, will depend on the management guidance established for the Wildlife Habitat Management Area.

This CDCA Plan Amendment presents alternative strategies which would guide management of the Wildlife Habitat Management Area and may result in changes in land use, such as motorized vehicle access, utilities, sand and gravel mining, etc. The remainder of this chapter analyzes how the various alternative strategies impact use of the public lands and the resources contained therein.

Additional management prescriptions may be adopted through the final CVMSHCP planning effort. Cumulatively, implementation of the management prescriptions within CVMSHCP conservation areas would result in less intensive use of the public lands in order to facilitate multi-species habitat conservation and management.

Alternative B. Within the CVMSHCP conservation area, 7,292 acres would be designated as Areas of Critical Environmental Concern in addition to the existing 51,190 acres of ACECs, and the remaining 16,338 acres would be designated as WHMA. Similar to Alternative A, the

ACEC and WHMA designations themselves would have no direct impact on the resources or allowable uses within that area. The allowable uses within the ACECs and WHMAs and resultant impact on resources contained therein, will depend on the management guidance established for the Wildlife Habitat Management Area.

ACECs can only be designated if there are relevant and important resources in need of special management protection in accordance with law, regulation and policy. While the importance of the potential ACECs could be demonstrated (see Chapter 3 of this document), the relevance of these potential ACECs could not be established at this time because several of the threatened and endangered species distribution maps were based on modeling and were not verified through field surveys.

Alternative C. Under this alternative, 23,631 acres of BLM land would be designated as an Area of Critical Environmental Concern. While the importance of this potential ACEC could be demonstrated, the relevance could not be established at this time because several of the threatened and endangered species distribution maps were based on modeling and were not verified through field surveys.

Alternative D. No new Areas of Critical Environmental Concern nor Wildlife Habitat Management Areas would be designated at this time. Existing area designations would remain unchanged. Sensitive resources would still be taken into consideration in accordance with law, regulation and policy, when evaluating the compatibility of land use proposals on the BLM-managed lands. However, this evaluation would occur on a project-by-project basis without benefit of a landscape perspective for multi-species management.

4.1.1.2 Wild and Scenic Rivers

Wild and Scenic River Eligibility Determinations. Wild and Scenic River eligibility determinations made through this plan amendment apply only to river segments on BLM-managed public lands. River segments determined eligible are located in Whitewater Canyon, Mission Creek (main channel, North Fork, South Fork, and West Fork), and Palm Canyon (Alternatives A, B and C). Of these segments, 6.5 miles of Whitewater Canyon, 5.2 miles of the Mission Creek main channel, 0.4 miles of Mission Creek North Fork, 1.1 miles of Mission Creek South Fork, and 2.9 miles of Mission Creek West Fork, totaling 16.1 miles in length, occur within the San Gorgonio Wilderness Additions; outside this wilderness area, 1.6 miles of Whitewater Canyon and 1.4 miles of the Mission Creek main channel occur in a CVMSHCP conservation area. The 1.2-mile eligible river segment in Palm Canyon is located within the Santa Rosa and San Jacinto Mountains National Monument.

Once a river segment has been determined eligible and given a tentative classification as “wild,” “scenic,” and/or “recreational,” BLM is required to protect its free-flowing characteristics; protect, and to the degree practicable, enhance the Outstanding Remarkable Values (ORV’s) which contribute to the river segment’s eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. Protective management measures described in Appendix B meet these requirements. Hence, eligibility of the identified BLM-managed river segments under the Preferred Alternative would not be compromised prior to determinations of suitability or non-suitability as Wild and Scenic Rivers.

As determinations regarding eligibility of BLM-managed river segments for designation as Wild and Scenic Rivers would not be made at this time under Alternative D, impacts to possible eligible segments consequent to existing management are unknown; protective management measures pending determinations of suitability or non-suitability would not be identified. However, it is anticipated that existing management of designated wilderness would not compromise future determinations of eligibility for river segments therein. The free-flowing character and resource values of river segments in the Santa Rosa and San Jacinto Mountains National Monument would likely be adequately protected under provisions of the establishing legislation.

Visual Resource Management. Managing BLM lands along 16.1 miles of eligible river segments in Whitewater Canyon and Mission Creek (main channel and its three forks) within the San Gorgonio Wilderness Additions in accordance with Visual Resource Management (VRM) Class 1 objectives (all Alternatives) would maintain scenic values and is consistent with BLM policy that such management of visual resources be applied to Wild and Scenic Rivers upon designation. Outside the San Gorgonio Wilderness Additions, 1.6 miles of Whitewater Canyon and 1.4 miles of Mission Creek (main channel) would be managed in accordance with VRM Class 2 objectives. Such management would be inconsistent with BLM policy should these segments of Whitewater Canyon and Mission Creek be designated as Wild and Scenic Rivers. In the meantime, however, protective management measures identified in Appendix B would maintain scenic values in these river corridors during preparation of a suitability study.

Designation of the Santa Rosa and San Jacinto Mountains National Monument as VRM Class 2 (Alternatives A, B and C) would be inconsistent with BLM policy should the BLM-managed segment of Palm Canyon (1.2 miles in length) be designated as a Wild and Scenic River. However, protective management measures identified in Appendix B would maintain scenic values within Palm Canyon during the suitability study phase.

The effects of managing BLM lands consistent with interim VRM objectives established on a case-by-case basis when project proposals are submitted (Alternative D), except for lands within the Santa Rosa and San Gorgonio Wilderness Additions which are managed in accordance with VRM Class 1 objectives by policy, would be the same as for the Preferred Alternative; protective management measures must be undertaken for all river segments determined eligible for designation as Wild and Scenic Rivers. Scenic values of eligible river segments would not likely be adversely affected under this Alternative.

Land Health Standards and Air Quality. Management of all activities in accordance with regional land health standards and the air quality management strategy (Alternatives A, B and C) would help maintain and could enhance the outstandingly remarkable wildlife values of BLM-managed river segments located in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon (totaling 20.3 miles in length) where appropriate levels of soil infiltration and permeability are retained, habitats for native species are protected, proper riparian/wetland and stream function is facilitated, and air water quality is maintained. Where conditions of these resources are improved, outstandingly remarkable values could be enhanced.

Relative to the river segments identified under the Preferred Alternative as eligible for Wild and Scenic River designation, management of all activities in accordance with National Fallback Standards adopted as regional land health standards (Alternative D) would help maintain outstandingly remarkable wildlife values of BLM-managed river segments located in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon where appropriate soil infiltration and permeability rates are retained, habitats for native species are protected, and riparian/wetland and stream function in facilitated. Where conditions of these resources are improved, outstandingly remarkable values could be enhanced.

Multiple Use Classification. The Santa Rosa and San Gorgonio Wilderness Additions are designated as Multiple-Use Class "C" (Controlled Use) in accordance with the CDCA Plan (1980, as amended). Non-wilderness lands within the Santa Rosa and San Jacinto Mountains National Monument, and within CVMSHCP conservation areas would be classified as Multiple-Use Class "L" (Limited Use). Management of river segments on BLM lands in Whitewater Canyon, along Mission Creek (main channel and its three forks), and in Palm Canyon (totaling 20.3 miles in length) according to Multiple-Use Class "C" and "L" guidelines and in accordance with the Wilderness Act of 1964, the California Desert Protection Act of 1994, and the Santa Rosa and San Jacinto Mountains National Monument Act of 2000, where applicable, would not adversely affect the eligibility of these segments as Wild and Scenic Rivers (all Alternatives).

Habitat Conservation Objectives. Management of all activities consistent with habitat conservation objectives identified in Table 2-4 (Alternatives B and C) would help maintain the outstandingly remarkable wildlife values of BLM-managed river segments in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon (totaling 20.3 miles in length) where habitat conditions for sensitive species are minimally disturbed. Where habitat conditions for sensitive species are improved, outstandingly remarkable values could be enhanced.

Management direction provided by the Wilderness Act of 1964 and the California Desert Protection Act of 1994 regarding allowable uses within the Santa Rosa and San Geronio Wilderness Additions, and guidance provided by the Santa Rosa and San Jacinto National Monument Act of 2000 regarding allowable uses in Palm Canyon afford protection for existing habitats of sensitive species therein (all Alternatives); outstandingly remarkable wildlife values of BLM-managed river segments within these areas would not be compromised. Further, protective management measures undertaken for all river segments determined eligible for designation as Wild and Scenic Rivers as required by the Wild and Scenic Rivers Act would protect existing habitats for species that constitute outstandingly remarkable values (Apx B).

Fire Management. Fire suppression in habitat types where fire has not historically played a large role in the development and maintenance of these communities would help sustain the natural wilderness character of Whitewater Canyon and Mission Creek (main channel and its three forks) within the San Geronio Wilderness Additions, thereby protecting the outstandingly remarkable wildlife values that establish, in part, the eligibility of 16.1 miles of river segments at these locations as Wild and Scenic Rivers (Alternatives B and C). Prescribed fires in wilderness are consistent with BLM policy where the natural condition of a fire-dependent ecosystem would be reintroduced or maintained; where past strict fire control measures have interfered with natural, ecological processes; where a primary value of a given wilderness would be perpetuated; or where a threatened or endangered species would be perpetuated. The fire management categories established under these alternatives would be consistent with BLM policy.

Fire suppression and/or prescribed fires on BLM-managed lands outside designated wilderness in Whitewater Canyon, along Mission Creek, and in Palm Canyon would likewise protect the outstandingly remarkable wildlife values of river segments at these locations (totaling 4.2 miles in length), though the extent to which these values would benefit from fire management actions undertaken in accordance with the fire management categories is unknown.

Managing fires in accordance with the CDCA Plan and the District-wide Fire Management Plan (Alternatives A and D) would help sustain the outstandingly remarkable wildlife values for BLM-managed river segments in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon by maintaining natural conditions. In accordance with BLM policy relative to river segments in the San Geronio Wilderness Additions, all fire management plans must consider wilderness management objectives, historic fire occurrence, natural role of fire, proposed degree of suppression, and acceptable suppression techniques. These considerations lend themselves to protection of ORVs.

Special Area Designations. No impacts to eligible Wild and Scenic River segments within the San Geronio Wilderness Additions and Santa Rosa and San Jacinto Mountains National Monument would occur as no new special area designations (ACECs or WHMAs) are proposed for these areas (all Alternatives). The eligible segment of Whitewater Canyon outside wilderness occurs within the existing Whitewater Canyon ACEC; no changes in special area designation would occur under any Alternative. Under Alternative A, the eligible segment of Mission Creek outside wilderness would be designated as a WHMA; under Alternatives B and C, it would be designated as an ACEC. As a WHMA or ACEC, this segment of Mission Creek may receive special management attention for the protection of important wildlife resources, thereby protecting its outstandingly remarkable wildlife values.

Land Tenure: Exchange and Sale Criteria. The exchange and sale criteria under Alternatives B and C, prescribing that BLM lands would generally be retained in public ownership, supports continued protective management of eligible Wild and Scenic River segments totaling 20.3 miles in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon. However, stewardship transfer of lands in Palm Canyon with the Agua Caliente Band of Cahuilla Indians as supported by Alternatives B and C, and the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 could result in the disposal of BLM-managed river segments in Palm Canyon (see “Wild Horse and Burro Program” below under this section addressing Wild and Scenic Rivers). If this occurs, responsibility for coordinating a Wild and Scenic River suitability study of Palm Canyon would transfer to the U.S. Forest Service if, as determined through its land use planning process, segments of Palm Canyon on USFS lands are determined eligible. Consideration of public land disposals on a case-by-case basis in accordance with the CDCA Plan (Alternatives A and D) would not affect eligible river segments as they must be protected pending determinations of suitability or non-suitability; disposal of these lands would not likely occur.

Land Tenure: Acquisition Criteria. Acquisition criteria under Alternatives B and C—prescribing that lands to be acquired would augment public ownership in sensitive areas, or improve biotic or abiotic habitat components of lands under conservation management—could result in additional segments of Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon being considered for eligibility as Wild and Scenic Rivers. Consideration of public land acquisitions on a case-by-case basis in accordance with the CDCA Plan (Alternatives A and D) could similarly result in additional segments being considered for eligibility, though perhaps on a different schedule.

Management of Acquired Lands. Upon acquisition of lands in wilderness containing river segments that may be eligible for designation as Wild and Scenic Rivers, management of these lands in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 would provide sufficient protection of free-flowing characteristics and outstandingly remarkable values until determinations of suitability or non-suitability are made (all Alternatives). Regarding acquired lands within the Santa Rosa and San Jacinto Mountains National Monument, the values in Palm Canyon would be protected through management actions undertaken in accordance with the legislation establishing the National Monument (all Alternatives). Lands acquired outside wilderness and the National Monument where eligible

river segments occur must be managed to protect the values herein referenced until such time that suitability determinations can be made (all Alternatives).

Communication Sites and Utilities. No impacts to BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness (river segments in Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would occur as no specific action identified under any Alternative relative to communication sites and utilities conflicts with management of wilderness as set forth in the Wilderness Act of 1964 and the California Desert Protection Act of 1994. In accordance with statute and subject to private existing rights, any new communication facility or utility, or rights-of-way thereto attached, are prohibited in wilderness. Relative to the eligible BLM-managed river segment in Palm Canyon (1.2 miles in length), the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 requires that the National Monument management plan address the need for and, as necessary, establish plans for the installation, construction, and maintenance of public utility rights-of-way outside designated wilderness. In any event, eligible river segments must be managed to protect their free-flowing characteristics and outstandingly remarkable values until such time that suitability determinations can be made (all Alternatives).

Sand and Gravel Mining. No impacts to BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness (river segments in Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would occur as no action identified under any Alternative relative to sand and gravel mining conflicts with management of wilderness as set forth in the Wilderness Act of 1964 and the California Desert Protection Act of 1994. In accordance with statute and subject to valid existing rights, no person shall obtain any right or interest in or to any mineral deposits that may be discovered through prospecting or other information-gathering activity in designated wilderness. Relative to the eligible BLM-managed river segment in Palm Canyon (1.2 miles in length), the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 withdraws federal lands from operation of the mineral materials laws, subject to valid existing rights. Such withdrawal would help protect the free-flowing characteristics and outstandingly remarkable values of these river segments until such time suitability determinations can be made. In any event, eligible river segments must be managed to protect their free-flowing characteristics and outstandingly remarkable values until such time that suitability determinations can be made (all Alternatives).

Livestock Grazing. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, livestock grazing is provided for in wilderness where such use was established before wilderness designation. Grazing in the San Geronio Wilderness Additions (Whitewater grazing allotment) meets this provision. Whether grazing is continued or discontinued, impacts to BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness (river segments in Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would not be anticipated (all Alternatives). Continuance of grazing activities must conform, at a minimum, to National Fallback Standards and Guidelines which would help maintain free-flowing characteristics and outstandingly remarkable values of these river segments until such time suitability determinations can be made.

Wild Horse and Burro Program. The Palm Canyon land exchange with the Agua Caliente Band of Cahuilla Indians as proposed under Alternative B and as provided for in the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 would effectively transfer responsibility for coordinating a Wild and Scenic River suitability study of Palm Canyon to the U.S. Forest Service if, as determined through its land use planning process, segments of Palm Canyon on USFS lands are determined eligible. Until the exchange of lands occurs, management of wild horses on public lands in Palm Canyon must protect the free-flowing characteristics and outstandingly remarkable values of the BLM-managed river segment (1.2 miles in length) until such time that suitability determinations can be made (all Alternatives).

Motorized-Vehicle Area Designations. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, motorized vehicles are prohibited in designated wilderness except where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations. Hence, wilderness areas are designated as “closed” to motorized-vehicle access, thereby protecting free-flowing characteristics and outstandingly remarkable values of eligible river segments in Whitewater Canyon and Mission Creek (totaling 16.1 miles in length) from incursions by casual motorized-vehicle use (all Alternatives). Authorized motorized-vehicle access within wilderness along a portion of Mission Creek (main channel) and Mission Creek West Fork by a private landowner is not frequent and would not adversely affect outstandingly remarkable wildlife values. Motorized-vehicle access along the eligible portions of Whitewater Canyon and Mission Creek outside wilderness (totaling 3.0 miles) is restricted to routes designated “open” (Alternatives A, B and C) or existing routes (Alternative D); river values would not likely be adversely affected by such restricted use. Relative to BLM-managed lands in Palm Canyon, closing the Dry Wash route to casual motorized-vehicle access (all Alternatives) would protect river values on 1.2 miles of the channel from potential incursions by motorized vehicles.

Motorized-Vehicle Route Designations. Route designations proposed under all Alternatives would result in the same impacts to eligible BLM-managed river segments in Whitewater Canyon and Mission Creek as discussed above under “Motorized-Vehicle Area Designations.” Closing the Dry Wash route to casual motorized-vehicle use (all Alternatives) would protect river values on BLM-managed lands in Palm Canyon that could be threatened by uncontrolled motorized-vehicle intrusions.

Special Recreation Management Area. The proposed Meccacopia Special Recreation Management Area (Alternatives A, B and C) is not located near any river segment on BLM-managed lands that has been determined as eligible for designation as a Wild and Scenic River.

Stopping, Parking and Vehicle Camping. Given that motorized-vehicle access is prohibited in wilderness except under certain circumstances (i.e., where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California

Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations), opportunities for the general public to stop, park, or camp with vehicles are not available. Hence, BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness (river segments in Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would not be affected (all Alternatives). Continuing the existing closure of route CV029 would preclude opportunities for vehicle camping along the eligible segment of Mission Creek outside wilderness (1.4 miles in length), thereby protecting river values from potential impacts resulting from these activities (all Alternatives). Closing the Dry Wash route to casual motorized-vehicle use under all Alternatives also eliminates opportunities to stop, park, or vehicle camp near BLM-managed lands in Palm Canyon, thereby helping to protect river values along 1.2 miles of the Canyon.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Alternatives A, B and C would help to conserve outstanding remarkable wildlife values in Palm Canyon related to conservation of the federally-listed Peninsular Ranges bighorn sheep.

Hiking, Biking and Equestrian Trails. Limiting non-motorized uses of the public lands to protect sensitive resources (Alternatives A, B and C) could help maintain outstandingly remarkable values of BLM-managed river segments determined eligible for designation as Wild and Scenic Rivers (river segments in Whitewater Canyon, Mission Creek, and Palm Canyon totaling 20.3 miles in length). The degree to which such values would be better protected cannot be ascertained until specific limitations on use are identified through an activity-level plan (e.g., Trails Management Plan element of the Coachella Valley Multiple Species Habitat Conservation Plan). Under all Alternatives, eligible river segments must be managed to protect their free-flowing characteristics and outstandingly remarkable values until such time that suitability determinations can be made.

4.1.1.3 Wilderness

Wild & Scenic River Eligibility Determinations. Eligibility determinations for possible inclusion of certain river segments in the National Wild and Scenic Rivers System (Alternatives A, B and C) apply only to segments on BLM-managed public lands in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon totaling 20.3 miles. Of these segments, portions in Whitewater Canyon and Mission Creek (totaling 16.1 miles) occur within the San Gorgonio Wilderness Additions. Once a river segment has been determined eligible and given a tentative classification as “wild,” “scenic,” and/or “recreational,” BLM is required to protect its free-flowing characteristics; protect, and to the degree practicable, enhance the Outstanding Remarkable Values (ORVs) which contribute to the river segment’s eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. Existing management of the San Gorgonio Wilderness Additions in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 affords sufficient protection to meet these requirements. As no specific management prescriptions are proposed to additionally protect the free-flowing characteristics and ORVs of the eligible river segments in wilderness, changes to the existing wilderness values are not anticipated.

Deferral of eligibility determinations for river segments on BLM-managed lands in Whitewater Canyon and Mission Creek (Alternative D) would not affect wilderness values of the San Gorgonio Wilderness Additions. Management of this area in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 affords adequate protection of wilderness values without implementing additional measures to ensure that the free-flowing characteristics and ORVs of these river segments are maintained pending a determination of suitability or non-suitability as Wild and Scenic Rivers.

Visual Resource Management. In accordance with BLM policy, wilderness areas are managed consistent with Visual Resource Management (VRM) Class 1 objectives. In VRM Class 1 areas, very limited management activities are allowed. Management of the Santa Rosa and San Gorgonio Wilderness Additions in accordance with these VRM objectives, as well as the Wilderness Act of 1964 and the California Desert Protection Act of 1994, would retain the apparent naturalness of these areas, i.e., existing visual quality would be protected on 91,327 acres (all Alternatives).

Land Health Standards and Air Quality. Management of all activities in accordance with regional land health standards as specified (Alternatives A, B and C) or National Fallback Standards adopted as regional land health standards (Alternative D) would help maintain wilderness character on 160,551 acres of public lands in the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness where appropriate levels of soil infiltration and permeability are retained, habitats for native species are protected, proper riparian/wetland and stream function is facilitated, and air and water quality are maintained. Where conditions of these resources are improved, wilderness character would be enhanced.

Multiple Use Classification. The Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness are designated as Multiple-Use Class “C” (Controlled Use) in accordance with the CDCA Plan (1980, as amended). As no change in such designation is herein proposed, no impacts to wilderness values would occur under any Alternative relative to multiple-use classifications.

Habitat Conservation Objectives. Management of all activities consistent with habitat conservation objectives identified in Table 2-4 (Alternatives B and C) would help maintain wilderness character on 160,551 acres of public lands in the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness by ensuring sensitive species and their habitats are minimally disturbed. Where habitat conditions for sensitive species are improved, wilderness character would be enhanced.

Management guidance provided by the Wilderness Act of 1964 and the California Desert Protection Act of 1994 regarding allowable uses within these wilderness areas protects habitats of sensitive species therein (all Alternatives). Hence, wilderness values related to these species and their habitats would be maintained.

Fire Management. Fire suppression in habitat types where fire has not historically played a large role in the development and maintenance of these communities (Alternatives B and C) would help sustain the natural wilderness character of the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness (160,551 acres of public lands in total). Prescribed fires in wilderness are consistent with BLM policy where the natural condition of a fire-dependent ecosystem would be reintroduced or maintained; where past strict fire control measures have interfered with natural, ecological processes; where a primary value of a given wilderness would be perpetuated; or where a threatened or endangered species would be perpetuated. The fire management categories established under these alternatives would be consistent with BLM policy. The extent to which wilderness values would benefit from fire management actions undertaken in accordance with the fire management categories is unknown.

Managing fires in accordance with the CDCA Plan and the District-wide Fire Management Plan (Alternatives A and D) would help sustain the natural wilderness character of the Santa Rosa and San Gorgonio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness by protecting natural conditions. In accordance with BLM policy, all fire management plans must consider wilderness management objectives, historic fire occurrence, natural role of fire, proposed degree of suppression, and acceptable suppression techniques.

Special Area Designations. No impacts to wilderness values would occur as no new special area designations (ACECs and WHMAs) are proposed for wilderness (all Alternatives).

Land Tenure: Exchange and Sale Criteria. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as the proposed exchange and sale criteria (Alternatives B and C) do not conflict with existing BLM strategies (Alternatives A and D) or the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (the latter pertaining only to the

Santa Rosa Wilderness Additions) regarding exchanges and sales of lands within designated wilderness.

Land Tenure: Acquisition Criteria. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as the proposed acquisition criteria (Alternatives B and C) do not conflict with existing BLM strategies (Alternatives A and D) or the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (the latter pertaining only to the Santa Rosa Wilderness Additions) regarding acquisition of non-federal lands within designated wilderness.

Management of Acquired Lands. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as the proposed management criteria (Alternatives A, B and C) do not conflict with existing management of acquired lands in wilderness as set forth in the Wilderness Act of 1964, the California Desert Protection Act of 1994, or the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (all Alternatives).

Communication Sites and Utilities. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as no specific action identified under any Alternative relative to communication sites and utilities conflicts with management of wilderness as set forth in the Wilderness Act of 1964 and the California Desert Protection Act of 1994. In accordance with statute and subject to private existing rights, any new communication facility or utility, or rights-of-way thereto attached, are prohibited in wilderness.

Sand and Gravel Mining. No impacts to resource values on 160,551 acres of public lands in wilderness would occur as no specific action identified under any Alternative relative to sand and gravel mining conflicts with management of wilderness as set forth in the Wilderness Act of 1964 and the California Desert Protection Act of 1994. In accordance with statute and subject to valid existing rights, no person shall obtain any right or interest in or to any mineral deposits that may be discovered through prospecting or other information-gathering activity in designated wilderness.

Livestock Grazing. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, livestock grazing is provided for in wilderness where such use was established before wilderness designation. Grazing in the San Geronio Wilderness Additions (Whitewater grazing allotment) meets this provision. Whether grazing is continued or suspended, or the allotment is retired, impacts to wilderness resource values on 36,632 acres of public lands would not be anticipated (all Alternatives). Continuance of grazing activities must conform, at a minimum, to National Fallback Standards and Guidelines which would help maintain wilderness values associated with soils, riparian and wetland areas, stream function, and native species.

Wild Horse and Burro Program. Neither of the Herd Management Areas addressed in the plan occurs within designated wilderness. Hence, wilderness values would not be affected by any of the Alternatives.

Motorized-Vehicle Area Designations. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, motorized vehicles are prohibited in designated wilderness except where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations. Hence, wilderness areas are designated as “closed” to motorized-vehicle access (all Alternatives).

Motorized-Vehicle Route Designations. In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, motorized vehicles are prohibited in designated wilderness except where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations. Hence, all routes within wilderness are designated as “closed” to casual motorized-vehicle access as a matter of course (all Alternatives).

Special Recreation Management Area. Designation of the Meccacopia Special Recreation Management Area (SRMA) in and of itself (Alternatives A, B and C) would not affect resource values on 69,224 acres of public lands within the adjacent Mecca Hills and Orocopia Mountains Wildernesses. Subsequent development of a Recreation Area Management Plan (RAMP) that addresses motorized and mechanized equipment intrusions into these wilderness areas, however, would benefit wilderness values to the degree that such intrusions are minimized upon its implementation. The degree to which vehicle intrusions would be minimized is unknown at this time.

Facets of wilderness management other than the control of motorized-vehicle access that affect wilderness values would also be addressed in the RAMP, e.g., opportunities for commercial recreation uses, opportunities for primitive types of recreation activities, and the future of existing structures. Where wilderness values can be better protected or enhanced, benefits to the wilderness resource would be accrued. However, the degree to which wilderness values would be better protected or enhanced consequent to implementation of the RAMP is unknown at this time.

No designation of a Special Recreation Management Area in the Mecca Hills/Orocopia Mountains region (Alternative D) could result in adverse impacts to wilderness values in the Mecca Hills and Orocopia Mountains Wildernesses to the degree that special or more intensive management of motorized-vehicles to minimize intrusions does not occur. With the installation of vehicle barriers and dissemination of educational materials, vehicle intrusions into these wilderness areas have been reduced since passage of the California Desert Protection Act of 1994, though intrusions continue to occur. Future occurrences of such intrusions under existing management is unknown.

Stopping, Parking and Vehicle Camping. Given that motorized-vehicle access is prohibited in wilderness except under certain circumstances (i.e., where access is required to enjoy private property, to facilitate activities associated with valid mining claims or other valid occupancies, to fulfil fish and wildlife management responsibilities under jurisdiction of the California Department of Fish and Game, or to accomplish certain administrative and law enforcement operations, including fire suppression and search and rescue operations), opportunities for the general public to stop, park, or camp with vehicles are not available. Hence, proposals under any Alternative are not pertinent to designated wilderness.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Alternatives A, B and C would help to protect and recover populations of the federally listed Peninsular Ranges bighorn sheep, which would also help to protect and enhance wilderness values on 54,695 acres of public lands in the Santa Rosa Wilderness Additions.

Hiking, Biking and Equestrian Trails. Limiting non-motorized uses of the public lands in wilderness to protect sensitive resources (Alternatives A, B and C) could benefit resource values, as well as help maintain wilderness character on 160,551 acres where such character is based, wholly or in part, on those resources (applicable to the Santa Rosa and San Geronio Wilderness Additions, Mecca Hills Wilderness, and Orocopia Mountains Wilderness). The degree to which wilderness values would be better protected cannot be ascertained until resources to be protected and specific limitations on use are identified through an activity-level plan (e.g., Trails Management Plan element of the Coachella Valley Multiple Species Habitat Conservation Plan which affects the Santa Rosa Wilderness Additions, and Meccacopia Recreation Area Management Plan which affects the Mecca Hills and Orocopia Mountains Wildernesses).

Under Alternative D, protection of resource values in wilderness from non-motorized activities would be afforded on a case-by-case basis upon identification of specific impacts and development of protective measures, including issuance of closure orders where necessary.

4.1.1.4 Farmlands

There are no BLM-managed lands under lease for agricultural production. Implementation of the air quality management strategy on the BLM-managed lands will help to share the responsibility for reducing air quality impacts throughout the Coachella Valley.

4.1.1.5 Livestock Grazing

Preferred Alternative A. Making all of the Whitewater grazing allotment temporarily unavailable for livestock use would temporarily minimize cattle trespass onto intermingled private land without fencing. Allocation of the forage to wildlife, would support efforts to recover sensitive species and riparian proper functioning condition. When grazing is re-established on 38,936 acres of public land, it would be based on a combined management strategy defined by the allotment management plan, grazing regulations, rangeland health standards, habitat conservation objectives, and biological opinions issued by the US Fish and Wildlife Service. The permittee would be subject to physical access agreements with private landowners and whether or not allotment inholders will attempt to fence cattle off of their lands. Installation of a few minor range improvements, beyond the fences referenced above, would be necessary to maintain rangeland health and to meet resource objectives based on rangeland health assessments.

Alternative B. Retiring a portion of the Whitewater grazing allotment would eliminate a maximum of 248 annual unit months from the BLM-managed lands. Making about 9,700 acres of the Whitewater grazing allotment unavailable for livestock use would make additional forage available for wildlife, minimize cattle trespass onto intermingled private land, and support efforts to recover riparian condition. No impacts to other existing BLM land use designations, potential Wild and Scenic Rivers, wilderness areas, or wild horse and burro management areas are anticipated.

Alternative C. Deleting the Whitewater allotment would make 38,936 acres unavailable for livestock grazing and eliminate a maximum of 990 annual unit months from the BLM-managed lands within the Coachella Valley. Otherwise, impacts would be similar to Alternative A.

No Action Alternative (D). Cattle grazing use on 38,936 acres of public land could continue subject to physical access agreements with private landowners and whether or not allotment inholders will attempt to fence cattle off of their lands. However, grazing use of public lands would not be returned to the allotment until rangeland health standards are being met. When grazing is re-established, it would be based on a combined management strategy defined by the allotment management plan, grazing regulations, rangeland health standards, and biological opinions issued by the US Fish and Wildlife Service. Installation of a few minor range improvements, beyond the fences referenced above, would be necessary to maintain rangeland health and meet resource objectives based on rangeland health assessments.

The San Geronio Wilderness Additions (designated in the California Desert Protection Act), encompass nearly all of the Whitewater Canyon allotment. Restrictions regarding the use of motorized vehicles, mechanized equipment, and development of new range improvements limit options for the permittee in managing grazing operations to resolve rangeland health problems.

To meet land health objectives, temporary reductions or shifts in grazing activities for specific areas and periods would be employed to restore soil and vegetative conditions. These potential actions could require the lessee to regularly herd cattle, or construct range improvements to control livestock movement. No impacts to cattle grazing activities are expected when conducting prescribed treatment of tamarisk infestation in Whitewater Canyon in order to meet land health standards. Exclusion of livestock from treated areas are not expected to impact grazing activities due to the lack of suitable grazing land in the rocky bottom of Whitewater Canyon. Conversion to another class of livestock for better distribution is not an option in this area due to potential interactions with bighorn sheep. The lessee would be responsible for control and management of livestock while restoration continues.

During times when the allotment is not available for grazing use, the lessee would have to remove livestock until conditions are restored or range improvements are constructed. The improved vigor of perennial vegetation from maintenance of the standards would improve cattle forage over time and increase cattle weaning weights. Livestock in better body condition would reduce death loss through stress-related diseases.

4.1.1.6 Wild Horse and Burro Herd Management Areas

Retaining (Alternatives A and D) the Palm Canyon and Morongo Herd Management Areas (HMA), and establishing the Palm Canyon HMA as a grazing allotment for horses (Alternative A) would not result in impacts to existing area designations, livestock grazing, potential Wild and Scenic Rivers, or wilderness areas. However, land use conflicts within multi-species habitat conservation areas may arise. (See discussion under “Biological Resources”.) The herd management areas would be assessed and additional mitigation measures may be required to assure conformance with the land health standards.

Transferring public lands to the Agua Caliente Band of Cahuilla Indians (Preferred Alternative - B) and deleting the Palm Canyon and Morongo HMAs (Alternatives B & C)) would eliminate all HMAs within the Coachella Valley. This impact is minimal due to the lack of wild horses and burros left in the Coachella Valley. No impacts to other existing BLM land use designations, potential Wild and Scenic Rivers, wilderness areas, or livestock grazing are anticipated. Exchanging lands with the Tribe would help improve land management efficiency and minimize land use conflicts on the BLM-managed lands.

4.1.2 Transportation, Traffic and Circulation

Wild and Scenic River Eligibility Determinations. Determinations of eligibility for designation of river segments on public lands as Wild and Scenic Rivers would have no effect on transportation, traffic and circulation. An eligibility determination requires that the free-flowing nature of the river segment and the Outstandingly Remarkable Values supporting river segments' eligibility are not compromised. The classification of the river reflects the level of development, future development and access to the river at the time of designation.

If the rivers, or portions thereof, were later studied and found to be suitable for designation, existing dams and other impoundments or diversions would be unaffected. However, future development of new roads, railroads or pipelines, or the expansion of existing transportation facilities across BLM lands must demonstrate compliance with the provisions of the Wild and Scenic Rivers Act. Furthermore, no federal agency or department would be permitted to assist by loan, grant, license, or otherwise in the construction of any highway or other transportation project that would have a direct and adverse effect on the values for which such a designation was established. In this regard, the development of new transportation facilities along these rivers would be restricted.

Visual Resource Management. The designation of VRM classifications, in and of itself, would have no impact on roads or other transportation facilities on BLM-managed public lands as the classifications would be based on analyses of existing land uses and landscape quality. However, should a new or expanded transportation project be proposed in the future, the degree of contrast between the existing landscape and the proposed project (Contrast Rating) would be compared with the VRM classification to determine whether the anticipated level of contrast is acceptable. If the allowable contrast level is exceeded, the project would need to be redesigned or abandoned, or mitigation measures would need to be implemented to reduce critical impacts to acceptable levels. This process has the potential to limit the extent and increase the costs of future transportation system development on BLM-managed public lands in the planning area.

To minimize potential adverse effects of the VRM classification system on regional transportation systems, the Preferred Alternative would designate all BLM-managed public lands associated with existing and future development of transportation facilities as VRM Class 4, whether inside or outside the CVMSHCP conservation areas. VRM Class 4 is one of the least restrictive classifications, which allows any contrast to attract attention and be a dominant feature of the landscape in terms of scale, but requires it to repeat the form, line, color, and texture of the characteristic landscape. Mitigation measures and project redesign may be required to assure that future transportation facility development meets this standard. Such action may result in increased costs to transportation project developers.

Land Health Standards and Air Quality. The proposed land health standards are directed at promoting healthy landscapes. To achieve these standards, transportation projects would likely need to implement site-specific mitigation measures, such as improvements to soil, drainage, and vegetation, implementation of Best Management Practices to minimize impacts

to air and water quality, and special construction, design, or operational techniques. Such measures can be expected to result in increased costs to transportation projects. However, land health standards may not be used to permanently prohibit allowable uses established by law, regulation, or land use plans.

Multiple Use Classification. No impacts to existing or future transportation projects would be expected to occur. Transportation projects would still be allowed in multiple use classes "L," "M," and "I," but would continue to be prohibited in multiple use class "C," which applies only to wilderness areas.

Habitat Conservation Objectives. Implementation of the proposed habitat conservation objectives may require project-specific mitigation measures to be implemented where new or expanded transportation system construction occurs within conservation areas. This will likely increase costs to such projects; costs would depend upon the location of the project relative to sensitive species, habitat conservation areas, and ecological processes, such as sand transport corridors.

If the proposed habitat conservation objectives were not adopted, or for land outside conservation areas, transportation projects would still have to mitigate for impacts to listed species, cultural and other sensitive resources. Mitigation measures would be determined on a project-by-project basis. Additionally, recent transportation projects in the planning area but not involving BLM lands have required mitigation measures related to landscape level habitat management, which might also be imposed for such projects on BLM lands in the CDCA planning area.

Fire Management Categories. No impacts to transportation systems would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property.

With regard to transportation systems and services, the proposed fire management categories would clarify BLM's fire management and response strategy for various habitat types on BLM-managed lands in the planning area.

Special Area Designations. Designation of areas as ACECs or wildlife habitat management areas would not directly impact existing transportation systems or services on BLM-managed public lands in the CDCA planning area. The designation of such areas would not result in automatic closures of such facilities or their operation. Any potential closures would be proposed through a separate action, based on protection of sensitive cultural or natural resources. Efforts would be made to accomplish such protection without unnecessarily or unreasonably restricting public lands from uses that are compatible with that protection.

Land Tenure Exchange and Sale Criteria. Implementation of the proposed land tenure exchange and sale criteria would not impact transportation facilities or services. The BLM would still have the option to retain transportation infrastructure in public ownership. BLM may consider exchanges or sales of land, including land with roads and other transportation facilities, if all the criteria described in Chapter 2.1.4.6 are met.

Land Tenure Acquisition Criteria. Implementation of the land tenure acquisition criteria would not impact transportation facilities or services. Any proposed acquisitions would have to meet the criteria set forth in Chapter 2.1.4.7.

Management of Acquired Lands. The proposed action would not impact existing transportation facilities on BLM-managed public lands in the planning area. However, should the BLM acquire new lands that already contain roads, rail lines or other transportation facilities, the proposed action would require that they be managed in accordance with management practices on surrounding lands. Where surrounding lands are managed for the protection of sensitive cultural or natural resources (such as in an ACEC), this could result in the need for additional mitigation measures and costs associated with new or expanded transportation facilities.

If no guidance for managing acquired lands were provided at this time, a separate plan amendment process would be required to define appropriate land uses on the newly acquired lands.

Communication Sites and Utilities. The proposed action would minimize land use conflicts (such as noise, traffic, construction and operational activity) between sensitive natural resource areas and transportation infrastructure, traffic and associated impacts. However, it would also limit opportunities for new transportation system development on BLM-managed public lands in the CDCA planning area.

Sand and Gravel Mining. The proposed action would not impact transportation systems.

Livestock Grazing. Discontinuing grazing uses in of all or a portion of the Whitewater Canyon grazing allotment would not affect transportation infrastructure or services.

Wild Horse and Burro Program. The proposed transfer of BLM parcels within the Palm Canyon Herd Management Area (HMA) to the Agua Caliente Tribe of Cahuilla Indians, and the proposed deletion of the Palm Canyon and Morongo HMAs would not impact transportation systems or facilities.

Motorized Vehicle Area Designations. The proposed action would not impact non-recreational transportation systems, facilities or services.

Motorized Vehicle Route Designations. Given that the designation of motor vehicle routes would be based on analyses of existing land uses, no impacts to existing non-recreational transportation systems, facilities or services would occur. Where access to future transportation system facilities is necessary, it would be provided in accordance with the criteria described in Chapter 2.1.4.14.

Special Recreation Management Area. Designation of the Mecca-Orocopia SRMA would not impact non-recreational transportation systems, facilities or services.

Stopping, Parking and Vehicle Camping. The proposed action would not impact non-recreational transportation systems, facilities or services.

Peninsular Ranges Bighorn Sheep Recovery Strategy. No impacts to transportation systems, facilities or services.

Hiking, Biking and Equestrian Trails. No impacts to non-recreational transportation systems, facilities or services would result from the proposed action.

4.1.3 Soils, Geology, Mineral and Energy Resources

Wild and Scenic River Eligibility Determinations. Subject to valid existing rights, BLM is required to protect the free-flowing characteristics of river segments determined eligible for designation as Wild and Scenic Rivers; protect, and to the degree practicable, enhance the Outstanding Remarkable Values (ORV's) which contribute to the river segment's eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. Determinations of eligibility for 20.3 miles of Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon would not adversely affect soils, geology, mineral and energy resources. Development of mineral and energy resources where permitted in accordance with statute and regulation, subject to valid existing rights, would not be additionally constrained upon implementation of protective management measures pending determinations of suitability or non-suitability (see Appendix B).

Visual Resource Management. No impacts to soils, geology, mineral and energy resources would occur. VRM classifications assigned through this CDCA Plan amendment are based on existing land uses, and existing and proposed land use designations (e.g., wilderness, ACECs, conservation areas, and Santa Rosa and San Jacinto Mountains National Monument). Specific impacts to soils, geology, mineral and energy resources cannot be determined until project proposals are submitted to the BLM and a Contrast Rating that measures the degree of contrast between a proposed activity and the existing landscape is prepared. If the proposed project exceeds the allowable contrast, then a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts.

Land Health Standards and Air Quality. Implementing land health standards would help to identify management needs within mining and energy production areas in order to promote healthy landscapes, including improvement of soil conditions. Additional mitigation measures may be required to meet these land health standards within mining and energy production areas. Land health standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

Rangeland health conditions have been assessed for the Whitewater Canyon allotment. No impacts to cattle grazing activities are expected when conducting prescribed treatment of tamarisk infestation in Whitewater Canyon. Exclusion of livestock from treated areas are also not expected to impact grazing activities due to the lack of suitable grazing land in the rocky bottom of Whitewater Canyon.

Multiple Use Classification. No impacts to soils, geology, mineral and energy resources would occur. The most restrictive multiple use class 'C' only applies to wilderness areas. Mining and energy development is allowed in multiple use classes 'L', 'M' and 'I'.

Habitat Conservation Objectives. Additional mitigation measures may be required to meet the habitat conservation objectives within conservation areas for mining and energy production activities. This would likely result in increased production costs. The amount of

increased production costs will depend on the location of the mining and energy production areas relative to sensitive species, multi-species habitat conservation areas, and ecological process areas such as sand transport corridors. For example, sand and gravel mining projects within sand transport corridors would be designed so as to not block sand transport. Mining and energy production would be disallowed in areas with rare species or habitat types.

If the habitat conservation objectives were not adopted or for areas outside conservation areas, mining and energy projects would still have to mitigate for impacts to listed species, cultural and other sensitive resources. Mitigation measures would be assessed a case-by-case basis. Additional mitigation measures related to landscape level habitat management would not likely be imposed.

Fire Management Categories. No impacts to soils, geology, mineral and energy resources would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property.

Special Area Designations . No impacts. Designating areas as wildlife habitat management area or ACECs does not result in automatic closures to mining and energy production activities. Any closures must be proposed through a separate action, based on protection of sensitive resources and not on special area designations (See sections 4.3.11 and 4.3.12).

Land Tenure Exchange and Sale Criteria. No impacts from any alternatives to soils, geology, mineral and energy resources would occur. BLM would still have the option to retain mining and energy production sites in public ownership.

Land Tenure Acquisition Criteria. No impacts from any alternatives to soils, geology, mineral and energy resources would occur.

Management of Acquired Lands. The proposed action would facilitate consistency with surrounding land uses existing at the time. If no guidance for managing acquired lands was provided at this time, a separate plan amendment process would be required to define appropriate land uses on the newly acquired lands.

Communication Sites and Utilities. The proposed action is not expected to significantly impact existing communication sites, wind energy projects or utilities, including electric and natural gas lines and their rights-of-way. It is also not expected to impact soils or create issues of soil erosion. The issuance and implementation of new rights-of-way for windpark, communication sites or utilities shall be conditioned and regulated to assure that development and operation is conducted in such a manner as to preclude or adequately mitigate the potential for wind or water erosion. These include but are not limited to:

1. All on-site access and service roads, including those within operational areas, shall be regularly watered and, as necessary, soil stabilizers shall be applied to assure surface consolidation and minimization of free dust on road surfaces.

2. As necessary, water trucks shall be used to wet down on-site roads or to apply soil stabilizers during periods of activity on-site. No plumes of dust shall be permitted to cross project site boundaries.
3. In areas of on-going activity the operator shall continue to apply water sprays to knockdown and preclude emissions of dust from these areas.
4. All grading and similar site disturbance activity shall cease operations when winds exceed 30 miles per hour.
5. During construction, materials proposed for off-site hauling shall be wet-down prior to leaving the site. Hauled materials shall also be either tarped or a minimum of six inches of freeboard shall be maintained in sand-hauling vehicles.
6. All gasoline and diesel-fueled equipment shall be properly tuned and maintained to limit associated emissions to the greatest extent possible.

Future requests for communication, windpark or utility rights-of-way will be evaluated on a project-specific basis and the potential for soils erosion will be assessed and mitigated. Regulation is not expected to increase production costs inasmuch as these regulations are already integral to similar activities, whether conducted on BLM or private lands.

Sand and Gravel Mining. The proposed action is not expected to impact soils or create issues of soil erosion. The issuance and implementation of mineral extraction rights-of-way are conditioned and regulated to assure that resource extraction and processing is conducted in such a manner as to preclude or adequately mitigate the potential for wind or water erosion. These include but are not limited to:

1. All on-site hauling roads, including those within mining and processing areas, shall be regularly watered and, as necessary, soil stabilizers shall be applied to assure surface consolidation and minimization of free dust on road surfaces.
2. Water trucks shall continue to operate at and in conjunction with all excavation activities on-site, including those associated with initial excavation and subsequent transfers and handling of materials. No plumes of dust shall be permitted to cross project site boundaries.
3. Crushers, conveyors and other process areas shall continue to apply water sprays to knockdown and preclude emissions of dust from these material process areas and equipment.
4. Excess sand placed in stockpiles shall be watered upon initial deposition to enhance cementation, and shall otherwise remain undisturbed to assure a stable, erosion resistant surface. In areas where sand is removed from stockpiles, these areas shall be re-watered to again establish surface cementation and stabilization.

5. All materials excavation and transfer activities between mining and process areas shall cease operations when winds exceed 30 miles per hour.
6. Sand proposed for off-site hauling shall be wet-down prior to leaving the site. Sand materials shall also be either tarped or a minimum of six inches of freeboard shall be maintained in sand-hauling vehicles.
7. In areas where mining activities have been completed, the reclamation plan shall be implemented, including the final contouring of side slopes and the deposition of stockpiled surficial seedbed materials. These areas shall remain undisturbed thereafter, thereby further stabilizing previously disturbed areas..
8. All gasoline and diesel-fueled equipment shall be properly tuned and maintained to limit associated emissions to the greatest extent possible.

Future requests for mineral extraction rights-of-way will be evaluated on a project-specific basis and the potential for soils erosion will be assessed and mitigated. Regulation is not expected to increase production costs inasmuch as these regulations are already integral to mineral extract activities, whether conducted on BLM or private lands.

Livestock Grazing. Deleting all or a portion of the Whitewater grazing allotment would minimize soil erosion on steep slopes where cattle graze. If the entire allotment were retained, minimizing soil erosion would still be required to meet the rangeland health assessment standards. Techniques, such as seasonal rest periods would be employed. No impacts to geology, mineral and energy resources would occur.

Wild Horse and Burro Program. Maintaining horses within Palm Canyon would continue the accelerated soil erosion occurring on the steeper slopes. No impacts geology, mineral and energy resources would occur.

Motorized Vehicle Area Designations. The proposed Plan amendment is not expected to adversely affect existing or future motorized vehicle area designations. As with other activities with the potential to induce soil erosion and associated impacts, such activities as off-highway vehicle use shall be properly regulated and monitored to reduce potential impacts to acceptable levels. Considerations to be made include assessment of the erosion potential of site soils, on-site and tributary drainage patterns and potential flows, relationships to strong wind areas, and activity areas as they relate to project boundaries. A variety of management strategies may also be imposed, including the shutdown of activity areas during period of high winds, installation of “rattle bars” or cattle guards to remove dirt from vehicles leaving an activity area, and on-site use restrictions.

Generally, utilities and communication sites are not considered sensitive receptors for noise or other impacts typically associated with motorized vehicle use areas. To the extent such facilities may constitute an attractive nuisance, it may be necessary to assure that users of motorized vehicle areas do not encroach upon windfarm or surface mining areas. Regulation and management that may be implemented could include the installation of fencing and

posting of signage to keep motorized vehicle users within designated use areas. To the extent compatible with permitted uses on BLM lands, the BLM shall assure compliance with applicable guidelines and regulations of the US Environmental protection Agency and the South Coast Air Quality Management District (SCAQMD).

Motorized Vehicle Route Designations. The proposed amendment to the CDCA Plan specifically addresses the control and prudent limitation of routes of travel by motorized vehicles. The routes are typically located within natural drainages or sand washes and are used on a very low frequency or level of intensity. Proposed changes to the Plan are not expected to significantly affect local soils, mineral resources or their permitted extraction, or energy resources. The following measures proposed by the SCAQMD can assure that wind erosion is minimized.

New unpaved routes shall be prohibited after unless environmental review demonstrates that their use will not violate standards of the PM10 State Implementation Plan (SIP). Use of public unpaved routes of travel with between 20 and 150 average daily traffic (ADT) levels shall be regulated by taking measures (signage or speed control devices) to reduce vehicular speeds to 15 miles per hour). New public routes of travel that have ADT levels of 150 or more shall be regulated by applying and maintaining chemical or other effective dust suppressants.

Special Recreation Management Area. No impacts to soils, geology, mineral and energy resources would occur.

Stopping Parking and Vehicle Camping. Limiting parking within conservation areas would minimize surface disturbance and soil erosion in those areas. No impacts to geology, mineral and energy resources would occur.

Peninsular Ranges Bighorn Sheep Recovery Strategy. No impacts to soils, geology, mineral and energy resources.

Hiking, Biking and Equestrian Trails. Limitations on trail use within Peninsular Ranges bighorn sheep habitat would overall have minimal impact on soils, geology, mineral and energy resources due to the low rainfall. While some soil erosion is associated with trail use and new trail development, the amount of soil erosion is dependent on the new trail design, the level of trail maintenance, weather conditions and other factors. As site specific trail projects are considered, mitigation measures to minimize soil erosion would be addressed.

4.1.4 Recreation

Wild & Scenic River Eligibility Determinations. Determinations of eligibility for BLM-managed river segments in Whitewater Canyon, Mission Creek (main channel and its three forks), and Palm Canyon (totaling 20.3 miles in length) as Wild and Scenic Rivers (Alternatives A, B and C) would result in no substantive impacts to recreation. Once a river segment has been determined eligible and given a tentative classification as “wild,” “scenic,” and/or “recreational,” BLM is required to protect its free-flowing characteristics; protect, and to the degree practicable, enhance the Outstanding Remarkable Values (ORVs) which contribute to the river segment’s eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. Protective management of eligible river segments on BLM lands in Whitewater Canyon, Mission Creek, and Palm Canyon (see Appendix B) would not constrain opportunities for recreation to any greater degree than under current management, except that vehicle camping within 1/4-mile of the eligible segment of Mission Creek outside wilderness would be prohibited. However, incidences of camping at this location are believed to be low, hence impacts from the closure would be minor. Opportunities for such activities as hiking, backpacking, horseback riding, nature study, and photography would not be diminished.

Visual Resource Management. VRM classifications assigned through this CDCA Plan amendment (alternatives A, B and C) are based on existing land uses, and existing and proposed land use designations (e.g., wilderness, ACECs, conservation areas, and Santa Rosa and San Jacinto Mountains National Monument). Specific impacts to recreation cannot be determined until project proposals are submitted to the BLM and a Contrast Rating that measures the degree of contrast between a proposed activity and the existing landscape is prepared. If the proposed project exceeds the allowable contrast, then a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts. Projects that are recreational based would be subject to the applicable VRM objectives, including projects proposed by the BLM. The effects of managing BLM lands consistent with interim VRM objectives established on a case-by-case basis when project proposals are submitted (Alternative D), except for lands within the Santa Rosa and San Geronio Wilderness Additions which are VRM Class 1 in accordance with BLM policy, would be the same.

Land Health Standards and Air Quality. Actions relating specifically to the management of recreation in accordance with regional land health standards developed in consultation with the California Desert District Advisory Council are not specified (Alternatives A, B and C). Where recreational activities adversely affect soils, native species, riparian/wetland and stream function, water quality, and air quality to the degree that such standards are not met or cannot be met, mitigation measures would be developed to reduce the impacts to acceptable levels. However, no recreational activities or recreation sites have been specifically identified as noncompliant with these standards, hence no changes in the management of such activities are proposed. Therefore, adoption of the regional land health standards proposed under these alternatives results in no adverse impacts to recreation.

Where resource conditions are improved consequent to undertaking actions to comply with regional land health standards, the quality of recreational experiences may be enhanced, particularly those forms of recreation that rely on landscape quality (e.g., sightseeing, nature study, and photography). However, no sites have been identified at this time where resource conditions do not comply with regional land health standards. Hence, benefits to recreation cannot be ascertained on a site-specific basis.

Adopting the rangeland National Fallback Standards as regional land health standards (Alternative D) results in no adverse impacts to recreation for the same reasons as described under the Preferred Alternative, though the effects of recreational activities would be measured in relation to soils infiltration and permeability, riparian/wetland function, stream function, and health of native species. Benefits to recreation may be accrued where resource conditions are improved to comply with National Fallback Standards—i.e., opportunities for sightseeing, nature study, and photography, among others, would be enhanced—though such benefits cannot be ascertained until sites are identified where actions would be undertaken to improve resource conditions.

Multiple Use Classification. Changes in existing Multiple-Use Classes are based on new special area designations and proposed uses of public lands. Recreational activities would not generally be affected by changes to, or retention of, existing Multiple-Use Classes (all Alternatives). Instead, adverse or beneficial impacts to recreation would occur as a result of proposals being implemented that specifically affect a particular type of recreation (e.g., development of an off-highway vehicle recreation area that affects opportunities for motorized free-play activities; development of new trails that affects hiking, mountain biking, and horseback riding opportunities; etc.). Relative to certain proposals being approved, Multiple-Use Classes may be revised, e.g., where off-highway vehicle recreation areas are established, the Multiple-Use Class would be changed to “I.”

Habitat Conservation Objectives. Changes in recreational uses would be required in some instances to meet habitat conservation objectives (Alternatives B and C). Specifically, designation of areas and motorized-vehicle routes constitute land use decisions that would be made, in part, to meet these objectives, the effects of which are herein addressed (see “Motorized-Vehicle Area Designations” and “Motorized-Vehicle Routes Designations” below). Specific actions that apply to access for non-motorized activities are being addressed through the Coachella Valley Multiple Species Habitat Conservation Plan. A proposed array of trails plan alternatives for the Santa Rosa and San Jacinto Mountains, including a proposed preferred alternative, is presented in Section 2.2, the effects of which are addressed in Section 4.2. Decisions addressing trail use on lands managed by all jurisdictions, including the BLM, will be made through the Multiple Species Plan, not this CDCA Plan Amendment.

Existing statutes such as the Endangered Species Act and Clean Air Act, and guidance provided in the CDCA Plan would necessitate in some instances that recreational uses of the public lands be further limited to conserve resource values (Alternatives A and D). Where such limitations are necessary, actions are herein proposed. The discussion above relative to the Preferred Alternative is applicable for these Alternatives.

Fire Management. Generally, no impacts to recreation would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property (all Alternatives). However, to the degree that vegetative conditions would be maintained or enhanced through fire suppression and prescribed burning in support of various flora and fauna that comprise important elements of the overall recreation experience (e.g., the presence of bighorn sheep for wildlife viewing and photography), opportunities for recreation would be maintained or enhanced.

Special Area Designations. No direct impacts to recreation would occur from new special area designations or the lack thereof (all Alternatives). Designating areas as Wildlife Habitat Management Areas or ACECs does not automatically limit recreational opportunities. Any such limitations must be proposed through a separate action, based on protection of sensitive resources and not on special area designations.

Land Tenure: Exchange and Sale Criteria. No impacts to recreational use would occur consequent to adopting the specified criteria (Alternatives B and C) or considering exchanges on a case-by-case basis (Alternatives A and D) as BLM would still have the option to retain recreational use areas in public ownership.

Land Tenure: Acquisition Criteria. Where lands are acquired to divert intensive uses away from sensitive areas in accordance with the criteria (Alternatives B and C), opportunities for recreation could be enhanced (e.g., acquisition of lands to facilitate development of an off-highway vehicle recreation area to divert motorized free-play activities away from habitat for endangered species). Specific impacts to recreation of lands acquired based on the identified criteria, however, cannot be determined until parcel location and management parameters are identified. Opportunities for recreation on lands considered for acquisition on a case-by-case basis would be addressed as appropriate (Alternatives A and D). Lands could be acquired for the purpose of enhancing recreational opportunities.

Management of Acquired Lands. Where access to acquired lands would be restricted to achieve objectives established for conservation areas (Alternatives A, B and C), opportunities for recreation may be concomitantly limited. Where certain types of recreation would be allowed in the conservation area, it is anticipated that the same recreational uses would be allowed on the acquired lands therein. These alternatives would facilitate consistency with surrounding land uses existing at the time. If no guidance for managing acquired lands was provided at this time (Alternative D), a separate plan amendment process may be required to define appropriate recreational uses on the newly acquired lands (e.g., use of acquired lands as an off-highway vehicle recreation area would require a plan amendment).

Communication Sites and Utilities. Actions addressing communications sites and utilities generally would have no affect on recreational opportunities except where new facilities are developed (all Alternatives). Windparks and communication sites are not available for recreational use. New facilities could further restrict opportunities for recreation by closing additional lands to recreational access. Roads to access utilities are generally available for casual motorized-vehicle use.

Sand and Gravel Mining. Actions addressing sand and gravel mining generally would have no affect on recreational opportunities as sites accommodating such mining are not available for recreational use (all Alternatives).

Livestock Grazing. Whether grazing is suspended or retired in all or part of the Whitewater Allotment (Alternatives A, B or C), the aesthetic component of primitive recreation on BLM-managed lands in the San Geronio Wilderness Additions could improve to the degree that livestock, manure, or other evidence of livestock presence (e.g., hoof-prints) are not encountered, especially while traveling on the Pacific Crest National Scenic Trail. Such encounters can negatively affect some individuals' perceptions of naturalness in wilderness, even though grazing is a compatible use under the Wilderness Act of 1964 and the California Desert Protection Act of 1994. The extent of such encounters is unknown. Continuance of grazing under the requirement that, at a minimum, it must conform to National Fallback Standards (Alternative D), would maintain resource conditions. Hence the natural conditions of wilderness upon which non-motorized activities rely (e.g., nature study, photography, hiking, horseback riding, etc.) would be maintained.

Wild Horse and Burro Program. Retention of wild horses on BLM-managed lands (Alternatives A and D) could adversely affect recreationists in the Palm Canyon area. The Agua Caliente Band of Cahuilla Indians have imposed a ban on equestrian use within the Indian Canyons Heritage Park because the "wild" stallion was behaving aggressively toward equestrian trail users, resulting in one thrown rider. Similar encounters could occur on BLM-managed lands. On the other hand, individuals have remarked that observations of wild horses in Palm Canyon enhance their recreational experience. Retiring the Palm Canyon and Morongo Canyon Herd Management Areas (Alternatives B and C), transferring specified land parcels with the Agua Caliente Tribe (Alternative B), and removing existing animals from BLM-managed lands (Alternative C) would affect recreational opportunities to the degree that the potential for adverse encounters is eliminated (positive effect) or individuals can no longer view wild horses in Palm Canyon (negative effect).

Motorized-Vehicle Area Designations. Under all Alternatives, areas available to off-highway vehicle use in the Coachella Valley over all ownerships would decline as population increases and lands to support this increase are converted from open space to developed sites. Under all Alternatives, maintaining existing closures on 142,517 acres of wildlife preserves and wilderness areas would not cause any change in recreational use.

Alternative A. Limiting motorized-vehicle use to a designated route system on 185,639 acres (excluding the NECO overlap area) would have no affect on current recreational uses. Designating Indio Hills, Drop 31, Windy Point, and Iron Door (totaling 3,800 acres) as "open" to off-highway vehicle use would maintain recreational opportunities for vehicular "free-play" activities where such use has been informally established over time. OHV recreation opportunities would be distributed throughout the Coachella Valley.

At Windy Point, it would be difficult to administer a 680-acre off-highway vehicle recreation area in a manner compatible with the Santa Rosa and San Jacinto Mountains National Monument Act of 2000, which limits vehicles to designated routes; as recognized in the

California Desert Conservation Area Plan (1980, as amended), individual routes of travel cannot be readily delineated in sand dunes. However, a Windy Point OHV open area would be compatible with adjacent private land uses related to OHV rental and increase the area available to rental customers. Use levels which existed prior to the temporary closure would likely return, with 100 to 150 people using the area on busy weekends. Use would continue to be primarily day use with rare instances of camping. Over time, use on busy weekends may increase as other off-highway vehicle free-play opportunities become less available and population in the Coachella Valley increases.

The proposed 1,040-acre OHV area (two parcels) in the Indio Hills would be adjacent to parcels which are part of the Coachella Valley Fringed-toed Lizard Preserve System. The area currently receives limited off-highway vehicle use; topography largely confines the use to wash bottoms, ridges and a bowl area, all physically separated from preserve lands. Much of the existing use occurs on adjacent private land parcels and the public land parcel north of the Edom Hill landfill. Designation would continue the use, and little or no change in the land use pattern on public lands would be expected. Designation may attract more use to the adjacent private lands. Use levels of 10 to 20 people per week would be expected to increase over to time to an estimated 40 to 50 people per week.

The 640-acre Iron Door parcel was formerly withdrawn to the U.S. Army in 1962 for military training purposes. That withdrawal was revoked in 1981. Currently, the site is heavily used by off-highway vehicles; adjacent private land parcels receive similar use. The land use pattern would continue, providing weekly opportunities for “free-play” vehicle recreation to up to 150 people.

Designation of 1,440 acres at Drop 31 along the Coachella Canal as an off-highway vehicle recreation area would continue an existing use (this area is located within the NECO overlap area). Because the area is adjacent to the Mecca Hills and Orocopia Mountains Wildernesses, there is some risk of vehicle intrusion into wilderness, but compliance along the wilderness boundary has generally been good. Current types and levels of recreation use in the area east of the Coachella Canal have generally been compatible with use of the canal for water transport and as a water source for wildlife. The land pattern in the area is intermingled with private lands which receive similar recreation use. Existing land uses and the general land use pattern would continue. Use levels of 250 to 500 users on busy holiday weekends would continue.

For all of the aforementioned OHV open areas, land use conflicts within multi-species habitat conservation areas and conflicts with air quality management are addressed in the discussions under “Biological Resources” and “Air Quality.”

Alternative B. Limiting motorized-vehicle use to a designated route system on 187,999 acres (excluding the NECO overlap area) would adversely affect existing opportunities for vehicular “free-play” recreation. Such activities on 2,360 acres of public lands in the Windy Point, Indio Hills, and Iron Door areas would be discontinued, and vehicle access would be limited to designated routes crossing the public land. Up to 100 to 150 people who might have used the Windy Point area on busy weekends, and 10 to 20 at Indio Hills plus up to 150 at Iron Door on

a weekly basis during the cooler months would be displaced. A privately owned off-highway vehicle rental business near Windy Point may accommodate some of the displaced use on adjacent private lands. Whether recreationists displaced from Windy Point would utilize these private “for fee” lands is unknown. Whether private landowners or other jurisdictions would continue or offer to accommodate the displaced use from all three areas is unknown.

Designation of 1,440 acres at Drop 31 as an off-highway vehicle recreation area would continue an existing use, although use patterns would be modified to mitigate for wildlife water access and wilderness. Long term access to and continued use of the area may be dependent on acquisition of private land parcels. Existing land uses and the general land use pattern at Drop 31 would continue (though modified along the wilderness boundary), with recreation use levels of 250 to 500 people on holiday weekends. Over time, use levels may increase as other opportunities for vehicular “free-play” activities become less available. The extent to which any displaced OHV enthusiasts from Windy Point, Indio Hills, or Iron Door would travel to Drop 31 is unknown, though it is likely that increased use of the site would occur once the public has been informed of the “open area” designation.

Alternative C. Limiting vehicle-based recreation to designated routes on 187,999 acres (excluding the NECO overlap area) would most adversely affect existing opportunities for vehicular “free-play” recreation. Such activities on 3,800 acres of public lands in the Windy Point, Indio Hills, Iron Door, and Drop 31 areas would be discontinued, displacing up to 500 OHV users per week during the cooler months. These users would likely seek other sites to continue their activities, thereby shifting pressures to private, non-federal public, or tribal lands in the immediate vicinity. Long term access to and continued use of private lands in the Coachella Valley would depend on actions by local jurisdictions and landowners.

Alternative D. The existing route network and informally established “free-play” areas on 187,999 acres of public lands (excluding the NECO overlap area) would be available for vehicle-based recreation. The informally established “free-play” areas include a total of 3,800 acres of public lands at Windy Point, Indio Hills, Iron Door, and Drop 31. OHV recreation opportunities would be distributed throughout the Coachella Valley.

At Windy Point, it would be difficult to administer an informally established, 680-acre vehicle-based recreation area in a manner compatible with the National Monument legislative requirement to limit vehicles to designated routes. However, continuation of vehicular “free-play” activities at this location is compatible with adjacent private land uses related to OHV rental and increases the area available to rental customers. Use levels which existed prior to the temporary closure would likely return, with 100 to 150 people using the area on busy weekends. Use would continue to be primarily day use with rare instances of camping. Over time, use on busy weekends may increase as other off-highway vehicle free-play opportunities become less available and population in the Coachella Valley increases.

The informally established 1,040-acre OHV area (two parcels) in the Indio Hills is adjacent to parcels which are part of the Coachella Valley Fringed-toed Lizard Preserve System. The area currently receives limited off-highway vehicle use; topography largely confines the use to wash bottoms, ridges and a bowl area, all physically separated from preserve lands. Much of

the existing use occurs on adjacent private land parcels and the public land parcel north of the Edom Hill landfill. Little or no change in the land use pattern on public lands would be expected; use levels of 10 to 20 people per week would continue.

The 640-acre Iron Door parcel was formerly withdrawn to the U.S. Army in 1962 for military training purposes. That withdrawal was revoked in 1981. Currently, the site is heavily used by off-highway vehicles; adjacent private land parcels receive similar use. The land use pattern would continue, providing weekly opportunities for “free-play” vehicle recreation to up to 150 people.

Off-highway vehicle “free-play” activities on 1,440 acres of public lands at Drop 31 along the Coachella Canal would continue. Although the area is adjacent to the Mecca Hills and Orocopia Mountains Wildernesses, vehicle intrusions into wilderness have been limited. Current types and levels of recreation use in the area east of the Coachella Canal have generally been compatible with use of the canal for water transport and as a water source for wildlife. The land pattern in the area is intermingled with private lands which receive similar recreation use. Existing land uses and the general land use pattern would continue. Use levels of 250 to 500 users on busy holiday weekends would continue.

Long term access to and continued use of private lands in the valley would depend on actions by local jurisdictions and landowners. Land use conflicts within multi-species habitat conservation areas and conflicts with air quality management are addressed in the discussions under “Biological Resources” and “Air Quality.”

Motorized-Vehicle Route Designations. See section 4.1.5, “Motorized-Vehicle Access,” for a complete discussion of how the alternative motorized-vehicle route designations would affect opportunities for motorized-vehicle access. This section will address how route designations would affect casual recreational activities such as hunting and vehicle touring (except for the NECO overlap area). Impacts to motorized commercial recreation on Dunn Road are addressed under “Motorized-Vehicle Access” below.

Under **Alternatives A and D**, the existing route network where closures have not already been implemented would continue to be available for motorized-vehicle use, providing vehicle access for hunting and vehicle touring, and access to destination sites such as trailheads. Of the 137 miles of existing routes on BLM-managed lands, 71 miles (52%) would be available for use; 66 miles (48%) would remain under existing closures.

Under **Alternative B**, an additional 26 miles of routes (19% of the existing route network on BLM lands) would no longer be available for motorized-vehicle use, thereby decreasing the total mileage of open routes to 45 miles (33% of the existing BLM network). The closure of these additional routes would be undertaken primarily to meet habitat conservation objectives and minimize air quality non-attainment in the Coachella Valley. Access to traditional hunting areas and opportunities for vehicle touring would largely be maintained given the extent of existing routes on non-federal lands that would remain available for use; overall vehicle access would be marginally decreased.

Under **Alternative C**, an additional 20 miles of routes (15% of the existing route network on BLM lands) relative to **Alternative B** would no longer be available for motorized-vehicle use, thereby decreasing the total mileage of open routes to 25 miles (18% of the existing BLM network). The closure of these additional routes would be undertaken to further minimize air quality non-attainment in the Coachella Valley. Opportunities for motorized recreation on public lands would be most constrained under this alternative. Popular touring routes such as the Kickapoo Trail in Little Morongo Canyon would be closed. The primary access route to Long Canyon in Joshua Tree National Park would not be available for use. Connectivity of travel along several powerline routes used by recreationists would be disrupted upon closure of public land segments.

Special Recreation Management Area. Designation of the Meccacopia Special Recreation Management Area (Alternatives A, B and C) would result in no direct impact to recreational use opportunities. Subsequent development of management prescriptions through a Recreation Area Management Plan could help reduce land use conflicts between wilderness and motorized recreational use, thereby benefitting recreation to the degree that opportunities for solitude and primitive types of recreation are enhanced in wilderness, and opportunities for motorized-vehicle activities outside wilderness are maintained. Under **Alternative D**, no Special Recreation Management Area would be designated at this time. To the degree that conflicts among various recreational uses would occur due to a lack of special management for the area, the quality of recreational experiences would diminish.

Stopping, Parking and Vehicle Camping. In accordance with the California Desert Conservation Area, stopping, parking, and vehicle camping are restricted to areas within 300 feet of a route, except within sensitive areas (such as ACECs where the limit is 100 feet)(**Alternative D**). Except for changing the point from which these distances are measured—from centerline (Alternatives A and B) versus from a route's edge (CDCA Plan)—the limits are not changed. However, with application of the 100-foot rule to conservation areas, the area available for stopping, parking, and vehicle camping on public lands would be reduced. Under **Alternative C**, the area available for stopping and parking in conservation areas is further limited by restricting vehicle travel to within 30 feet of a route's centerline along these same routes, and vehicle camping would be prohibited. Regardless of the alternative, adequate space for stopping and parking alongside routes would be available. Prohibition of vehicle camping in conservation areas (**Alternative C**) would diminish opportunities for this activity.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Any limitations on recreational trail use of the public lands (Alternatives A, B and C) will have an impact on the generally unlimited casual use that residents and visitors to the Coachella Valley have historically enjoyed. The extent of these limitations would be addressed through an activity level plan, in coordination with interested members of the public, local jurisdictions, U.S. Fish and Wildlife Service, and California Department of Fish and Game (see "Hiking, Biking and Equestrian Trails" below).

Hiking, Biking and Equestrian Trails. Any limitations on trail use (Alternatives A, B and C) will have an impact on the generally unlimited trail use that residents and visitors to the Coachella Valley have historically enjoyed. The extent of these limitations would be addressed through trails management planning in coordination with interested members of the public, local jurisdictions, U.S. Fish and Wildlife Service, and California Department of Fish and Game (e.g., Trails Management Plan element of the Coachella Valley Multiple Species Habitat Conservation Plan, see Section 2.2).

4.1.5 Motorized-Vehicle Access

Adverse impacts to motorized-vehicle access would occur in proportion to the amount of route closure, the location of closed routes, and the current public accessibility and use of routes proposed to be closed (excluding the NECO overlap area).

Under **Alternative A**, current motorized-vehicle access would not change. Seventy-one miles of routes on BLM-managed lands would be designated "open" (52% of the total mileage) and 66 miles would remain closed (48% of the total mileage). All closed routes, which include those in windfarm areas, at communications sites, and in certain special areas (e.g., Dos Palmas and Big Morongo Canyon ACECs), coincide with routes that are currently unavailable for general public use via motorized vehicles. No new routes would be closed to general public access. Lack of legal or physical access across private land parcels would continue to affect the available route network in parts of the planning areas due to the intermingled land ownership patterns.

Vehicle access on 15 miles of routes that cross public lands in the Dunn Road area would continue to be controlled by locked gates, and limited to permitted and administrative uses. Access to this area would also be affected by lack of legal access across private land parcels. Limitation of vehicle use on public land portions of Dunn Road, Dry Wash Road, and the access route from Royal Carrizo, except for administrative uses, would control the number and activities of visitors until bighorn sheep populations recover. Administrative and permitted uses would allow vehicular access with little or no impact to flood control, law enforcement, search and rescue, fire control, and research activities. Closure to casual recreational access by vehicle would continue. Legal access to landowners and agencies provided through a right-of-way grant with terms and conditions based upon a biological opinion would likely continue at very low use levels (fewer than 20 trips per year). Temporary access across public lands to accommodate private landowners in accessing their properties may be authorized.

Permitted commercial jeep tours on the upper reaches of Dunn Road could occur during the fall months with access provided through Pinyon Flats, subject to permission of private landowners, where applicable, and in conformance with terms and conditions of a biological opinion. Based on distribution of permitted use from 1995 to 1999, about 3,000 visitors annually might be accommodated, though due to the increased highway distance that must be traveled before tours could begin, this figure would likely be substantially lower. At least 7,000 visitors annually would continue to be displaced by limiting commercial vehicle tours to the fall months in conjunction with denial of landowner permission to cross private lands on the lower reaches of Dunn Road.

Under **Alternative B**, the route network would be reduced to 45 miles of open routes on BLM-managed lands (33% of the total mileage, excluding the NECO overlap area) in order to meet air quality and habitat conservation objectives. The closed route network (totaling 92 miles, or 67% of the total mileage) includes 26 miles of new closures (19% of the total mileage). No new areas would be unavailable for general public access, but access within areas that have multiple routes would be reduced; short spur routes would be closed. Many of these short spur routes have been used for illegal dumping and to access shooting areas. The remaining

66 miles of routes were closed to general public use through previous actions.

Vehicle access on 15 miles of routes that cross public lands in the Dunn Road area would continue to be controlled by locked gates, and limited to permitted and administrative uses. Access to this area would also be affected by lack of legal access across private land parcels. Limitation of vehicle use on public land portions of Dunn Road, Dry Wash Road, and the access route from Royal Carrizo, except for administrative uses, would control the number and activities of visitors until bighorn sheep populations recover. Administrative and permitted uses would allow vehicular access with little or no impact to flood control, law enforcement, search and rescue, fire control, and research activities. Closure to casual recreational access by vehicle would continue. Legal access to landowners and agencies provided through a right-of-way grant with terms and conditions based upon a biological opinion would likely continue at very low use levels (fewer than 20 trips per year). Temporary access across public lands to accommodate private landowners in accessing their properties may be authorized.

Permitted commercial jeep tours on the upper reaches of Dunn Road could occur during the fall months with access provided through Pinyon Flats, subject to permission of private landowners, where applicable, and in conformance with terms and conditions of a biological opinion. Based on distribution of permitted use from 1995 to 1999, about 3,000 visitors annually might be accommodated, though due to the increased highway distance that must be traveled before tours could begin, this figure would likely be substantially lower. At least 7,000 visitors annually would be displaced by limiting commercial vehicle tours to the fall months in conjunction with denial of landowner permission to cross private lands on the lower reaches of Dunn Road.

Re-evaluation of the designation of routes in the Dunn Road area at the time of sheep population recovery may allow for some increased public recreation access by vehicle. Permitted use would allow continued access with little or no impact for flood control, law enforcement, search and rescue, and fire control. Research and commercial recreational access would continue, but at reduced levels, dependent on permitting requirements (compliance with the terms of a biological opinion) and acquisition of access across private lands. Legal access to landowners and agencies provided through a right-of-way grant with terms and conditions based upon a biological opinion would likely continue at very low use levels.

Alternative C represents the greatest reduction of access with 25 miles of open routes (18% of the total mileage on BLM lands, excluding the NECO overlap area) and 112 miles of closed routes (82% of the total mileage) in order to meet habitat conservation objectives and further minimize air quality non-attainment in the Coachella Valley. The closed route network includes 46 miles of new closures (34% of the total mileage). No new areas would be unavailable for general public access, but access within areas that have multiple routes would be reduced; short spur routes would be closed. The remaining 66 miles of routes were closed to general public use through previous actions.

Vehicle access on 15 miles of routes that cross public lands in the Dunn Road area would continue to be controlled by locked gates, and limited to permitted and administrative uses.

Access to this area would also be affected by lack of legal access across private land parcels and lack of road maintenance. Over time, portions of Dunn Road would become impassable to four-wheeled vehicles due to erosion. Continued access for flood control, law enforcement, and fire control would be limited by road condition except in the case of an ongoing fire or emergency (in which case the road surface may be re-established). Research access by four-wheeled vehicles would eventually be discontinued as the road becomes impassable. Legal access to landowners and agencies provided through a right-of-way grant with terms and conditions based upon a biological opinion would be continued, but a through road is unlikely to persist. Commercial jeep tours would not be permitted. Based on permitted use from 1995 to 1999, about 10,000 visitors would be displaced on an annual basis, though denial of landowner permission to cross private lands on the lower reaches of Dunn Road currently displaces most of this use.

Under **Alternative D**, current motorized-vehicle access would not change. Seventy-one miles of existing routes on BLM-managed lands would continue to be available for use (52% of the total mileage) and 66 miles would remain closed (48% of the total mileage). All closed routes, which include those in windfarm areas, at communications sites, and in certain special areas (e.g., Dos Palmas and Big Morongo Canyon ACECs), coincide with routes that are currently unavailable for general public use via motorized vehicles. No new routes would be closed to general public access. Lack of legal or physical access across private land parcels would continue to affect the available route network in parts of the planning areas due to the intermingled land ownership patterns.

Impacts to uses of Dunn Road would be the same as under Alternative A, except that no limitations as to when commercial jeep tours may occur would be imposed through this plan amendment. Instead, applications for permits to use public land portions of Dunn Road would be addressed on a case-by-case basis. Commercial activities would be subject to permission of private landowners, where applicable, and must conform to terms and conditions of a biological opinion.

4.1.6 Flooding and Hydrology

Wild and Scenic River Recommendations. The proposed eligibility recommendations apply only to BLM-managed public lands which are already under conservation management, such as the Big Morongo Canyon ACEC, Whitewater Canyon ACEC, wilderness areas, and the Santa Rosa and San Jacinto Mountains National Monument. The recommendation of eligible rivers, in and of itself, would have no effect on flooding or hydrology processes in the planning area.

If the proposed rivers or portions thereof were later studied and found suitable for designation, existing dams and other impoundments or diversions would be unaffected. However, Section 7 of the Wild and Scenic Rivers Act expressly prohibits the Federal Energy Regulatory Commission (FERC) from licensing the construction of new dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works under the Federal Power Act, as amended, on or directly affecting any river which is designated as a component of the national wild and scenic rivers system. Furthermore, no federal department or agency would be permitted to assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such designation was established.

Visual Resource Management. No impacts to flooding and hydrology processes would occur as the VRM classifications are based on analyses of existing land uses and quality of landscapes.

Land Health Standards and Air Quality. The implementation of land health standards would help identify specific management needs, such as improvement of soil conditions and maintenance of appropriate hydrologic conditions, within areas prone to flooding and within riparian/wetland and stream environments. Additional mitigation measures may be required to meet these standards. Land health standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

Fire Management Categories. No impacts to flooding and hydrology processes would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property.

Habitat Conservation Objectives. The implementation of habitat conservation objectives would help define compatible land uses within conservation areas. Additional mitigation measures may be required to meet these objectives where flood management activities are proposed within conservation areas in order to minimize impacts to sensitive species and their habitats. Such measures would likely result in increased design and construction costs, depending upon the location of the flood control facilities relative to sensitive species, multi-species habitat conservation areas, and important ecological process areas, such as sand transport corridors.

If habitat conservation objectives are not adopted, or for areas outside conservation areas, flood management projects would still have to mitigate for impacts to listed species, cultural, and other sensitive resources. Mitigation measures would be assessed on a case-by-case basis.

Additional mitigation measures related to landscape level habitat management would not likely be imposed.

Multiple Use Classification. No impacts to flooding and hydrology processes would occur.

Special Area Designations. No direct impacts to flooding and hydrology processes would occur. The designation of wildlife habitat management areas or ACECs may further protect and prevent irreparable alterations to natural hydrologic systems or processes, depending upon area-specific management prescriptions. The designation of such areas would not automatically preclude the development of necessary flood management facilities. Compatible uses within wildlife habitat management areas and ACECs would be determined based on the management prescriptions adopted for a particular special area, and would not be determined by the designation itself.

Land Tenure Exchange and Sale Criteria. No impacts to flooding and hydrology processes would occur as a result of adopting land exchange and sale criteria.

Land Tenure Acquisition Criteria. The adoption of land tenure acquisition criteria would result in no impacts to flooding and hydrology processes.

Management of Acquired Lands. No impacts to flooding and hydrology processes would occur as a result of the proposed action.

Communication Sites and Utilities. The designation of areas for wind parks, utilities, and communication sites would not in and of itself affect flooding and hydrology processes. However, the future construction of such facilities and their access roads could result in increased soil erosion and/or the alteration of existing drainage patterns, rates and/or amounts of runoff, thereby impacting surrounding lands. Where such development is proposed within conservation areas, additional mitigation measures may be required to minimize impacts to sensitive resources and hydrologic processes, consistent with habitat conservation objectives.

If no areas were designated at this time, mitigation measures would be taken into consideration on a project-by-project basis, and potential land use conflicts may arise within conservation areas.

Sand and Gravel Mining. The designation of areas for sand and gravel mining, in and of itself, will not result in impacts to flooding and hydrology processes. However, the future development of such mining facilities may result in the alteration of existing drainage patterns, rates and/or runoff quantities, thereby impacting surrounding lands. Where such development is proposed within conservation areas, additional mitigation measures may be required to minimize impacts to sensitive resources and hydrologic processes, consistent with habitat conservation objectives.

If no areas were designated at this time, mitigation measures would be determined on a project-by-project basis, and potential land use conflicts may arise within conservation areas.

Livestock Grazing. Discontinuing grazing use on all or a portion of the Whitewater grazing allotment would minimize soil erosion and associated alterations in drainage patterns and runoff quantities on steep slopes where cattle graze.

If the entire Whitewater grazing allotment were retained, soil erosion would still need to be minimized and appropriate hydrologic processes would still need to be maintained to meet the rangeland health assessment standards. Seasonal rest periods and similar techniques would be employed.

Wild Horse and Burro Program. Due to the limited number of wild horses and burros occupying the Palm Canyon and Morongo Herd Management Areas, deletion of these HMAs would have only a limited impact on minimizing soil erosion and associated alterations in drainage patterns, rates, and/or runoff quantities.

Maintaining the existing horses within Palm Canyon would continue the soil erosion process and associated hydrologic effects occurring on steeper slopes.

Motorized Vehicle Area Designations. The designation of areas as “open” or “limited” to motorized vehicles would increase soil erosion and associated hydrologic effects, such as alterations in drainage patterns and rates, which could result in broader flooding/hydrology implications on surrounding lands.

The designation of areas as “closed” to motorized vehicles would minimize soil erosion and associated hydrologic effects, such as drainage patterns and rates.

Motorized Vehicle Route Designations. The designation of routes as “open” or “limited” to motorized vehicles would increase soil erosion and associated hydrologic effects, such as alterations in drainage patterns and rates, which could result in broader flooding/hydrology implications on surrounding lands.

The designation of areas as “closed” to motorized vehicles would minimize soil erosion and associated hydrologic effects, such as drainage patterns and rates.

Special Recreation Management Area. Designation of the Mecca-Orocopia SRMA would result in no impacts to flooding or hydrology processes.

Stopping, Parking and Vehicle Camping. Limiting stopping, parking, and vehicle camping to within 100 feet of the roadway centerline within sensitive areas, such as ACECs and conservation areas, would reduce soil erosion and associated hydrologic disturbances, such as alterations to drainage patterns and rates.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Alternatives A, B and C would have no impact on flooding and hydrology.

Hiking, Biking and Equestrian Trails. Although some soil erosion and alterations in drainage patterns and rates can be attributed to trail use and new trail development, these occurrences are also a product of trail design, quality of trail maintenance, weather conditions, and other factors. Proposed limitations on trails use within Peninsular bighorn sheep habitat would result in only minimal reductions in soil erosion and associated hydrologic effects. Mitigation measures to minimize soils and hydrologic impacts would be addressed as site-specific trail projects are proposed.

4.1.7 Water Resources/ Quality

Wild and Scenic River Recommendations. The proposed eligibility recommendations apply only to BLM-managed public lands, which are already under conservation management, such as the Big Morongo Canyon ACEC, Whitewater Canyon ACEC, wilderness areas, and the Santa Rosa and San Jacinto Mountains National Monument. The recommendation of eligible rivers, in and of itself, would have no adverse effect on local or regional water resources or quality in the planning area.

If the proposed rivers or portions thereof were later studied and found suitable for designation, existing dams and other impoundments or diversions would be unaffected. However, Section 7 of the Wild and Scenic Rivers Act expressly prohibits the Federal Energy Regulatory Commission (FERC) from licensing the construction of new dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works under the Federal Power Act, as amended, on or directly affecting any river which is designated as a component of the national wild and scenic rivers system. Furthermore, no federal department or agency would be permitted to assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such designation was established. Therefore, the proposed CDCA Plan amendment is not expected to have an adverse impact on water resources or quality.

Visual Resource Management. No impacts to water resources or quality would occur as the VRM classifications are based on analyses of existing land uses and quality of landscapes.

Land Health Standards and Air Quality. The implementation of land health standards, which include protection of water resources and quality, would help identify specific management needs, such as improvement of soil conditions and maintenance of appropriate hydrologic conditions, within areas with important surface and ground water resources. Additional mitigation measures may be required to meet these standards. Land health standards may not be used to permanently prohibit allowable uses established by law, regulation or land use plans.

Fire Management Categories. The proposed CDCA Plan amendments are designed to optimize vegetative cover and suppress fire in a manner and location consistent with underlying habitat needs. No impacts to water resources and quality would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property.

Habitat Conservation Objectives. The implementation of habitat conservation objectives would help define compatible land uses within conservation areas. The proposed objectives seek to preserve 99% to 100% of the important habitats identified in the Plan and the CV MSHCP, including riparian and wetland habitats. The proposed objectives will protect vegetative cover, preclude or greatly limit habitat and soil disturbance, and preclude most development with the potential to adversely impact regional air quality.

Additional mitigation measures may be required to meet these objectives where water resources and/or quality may be affected within conservation areas in order to protect or minimize impacts to sensitive species and their habitats. Such measures would likely result in increased design and construction costs, depending upon the location of the water management facilities relative to sensitive species, multi-species habitat conservation areas, and important ecological process areas, such as sand transport corridors.

If habitat conservation objectives are not adopted, or for areas outside conservation areas, water management projects would still have to mitigate for impacts to listed species, cultural, and other sensitive resources. Mitigation measures would be assessed on a case-by-case basis. Additional mitigation measures related to landscape level habitat management would not likely be imposed.

Multiple Use Classification. The proposed CDCA Plan amendment reassigns Multiple Use Classifications in a manner consistent with the habitat conservation objectives, land health standards (including water resources) and consistent land uses that may be permitted within each planning area. Lands with MSHCP-designated conservation areas will be designated as "Limited Use", which will require demonstrated compatibility, either through design or mitigation, with the goals and objectives of the CV MSHCP. Proposed uses would also be required to comply with the NEPA review process and mitigate potentially adverse impacts to air quality. Land uses proposed in designated "Moderate Use" areas, which will be outside conservation areas, will also be subject to NEPA review and the mitigation of potentially significant adverse impacts to air quality. Existing land uses, such as OHV and mining areas, would be designated "Intensive Use" areas, consistent with current uses and would be required to comply with applicable regulations associated with water resource/quality protections. No impacts to water resources or quality would occur.

Special Area Designations. No direct impacts to water resources or quality would occur. The designation of wildlife habitat management areas or ACECs may further protect and prevent irreparable alterations to natural hydrologic systems or processes, depending upon area-specific management prescriptions. The designation of such areas would not automatically preclude the development of water management facilities. Compatible uses within wildlife habitat management areas and ACECs would be determined based on the management prescriptions adopted for a particular special area, and would not be determined by the designation itself.

Land Tenure Exchange and Sale Criteria. The proposed CDCA Plan amendment would establish strict criteria for exchanges or sales of BLM lands, including benefits to conservation areas and the preservation of public ownership of land with priority public benefit, consideration in coordination with local jurisdictions. Such criteria would limit future sales and exchanges, which would continue to be subject to NEPA review, including consideration of potential adverse impacts to regional water resources and quality. No impacts to water resources or quality would occur as a result of adopting land exchange and sale criteria.

Land Tenure Acquisition Criteria. The proposed Plan amendment would establish strict criteria for acquisition of lands by the BLM, including acquisition that would benefit Coachella

Valley conservation areas either directly by augmenting conservation areas or by diverting more intense land uses to less sensitive areas, result in improvements to biotic and abiotic habitat components, including surface and ground water resources and quality. Such criteria would facilitate BLM's participation in assembly of conservation lands and thereby reduce potential adverse impacts to regional water resources and quality. The adoption of land tenure acquisition criteria would result in no impacts to water resources or quality processes.

Management of Acquired Lands. The proposed CDCA Plan amendment would assure that acquired or formerly withdrawn lands would be managed in conformance with the CDCA Plan, including placement of lands in conservation or making lands with important mineral or energy resources available for development consistent with habitat conservation objectives, land health standards (including water resources and quality) and NEPA performance standards. Proposed acquisitions would be subject to NEPA review, including assessment of proposed classifications and/or use potential impacts on regional water resources and quality. No impacts to water resources or quality would occur as a result of the proposed action.

Communication Sites and Utilities. The designation of areas for wind parks, utilities, and communication sites would not in and of itself affect surface or ground water resources or quality, or associated hydrology processes. However, the future construction of such facilities and their access roads could result in increased soil erosion and/or the alteration of existing drainage patterns, rates and/or amounts of runoff, thereby impacting associated water resources. Where such development is proposed within conservation areas, additional mitigation measures may be required to minimize impacts to sensitive water resources and hydrologic processes, consistent with habitat conservation objectives. If no areas were designated at this time, mitigation measures would be taken into consideration on a project-by-project basis, and potential land use conflicts may arise within conservation areas.

Sand and Gravel Mining. The designation of areas for sand and gravel mining, in and of itself, will not result in impacts to water resources or quality, or related hydrology processes. However, the future development of such mining facilities may result in the alteration of existing drainage patterns, availability and quality of ground water resources, and rates and/or runoff quantities, thereby impacting local water resources. Where such development is proposed within conservation areas, additional mitigation measures may be required to minimize impacts to water resources and hydrologic processes, consistent with habitat conservation objectives. If no areas were designated at this time, mitigation measures would be determined on a project-by-project basis, and potential land use conflicts may arise within conservation areas.

Livestock Grazing. The proposed amendment to the CDCA Plan would have no effect on livestock grazing within the planning area. With regard to livestock grazing, no new impacts to regional water resources or quality are expected to result from the proposed Plan amendment.

Wild Horse and Burro Program. The proposed amendment to the CDCA Plan would involve the transfer of BLM lands within the Palm Canyon Habitat Management Area to the Agua Caliente Tribe. BLM would continue to provide management assistance. Due to the limited number of wild horses and burros occupying the Palm Canyon and Morongo Herd

Management Areas, deletion of these HMAs would have only a limited impact on minimizing soil erosion and associated alterations in drainage patterns, rates, and/or runoff quantities. Maintaining the existing horses within Palm Canyon would continue the limited but overall insignificant soil erosion process and associated hydrologic effects occurring on steeper slopes. No significant impacts to water resources or quality are expected to result from this component of the CDCA Plan amendment.

Motorized Vehicle Area Designations. The proposed CDCA Plan amendment would result in the permanent closure of certain use areas and provide for the planned development and management of a new OHV area in the eastern portion of the planning area. As with other CDCA Plan elements, potential water resource and quality impacts are expected to be limited by management strategies incorporated into the proposed Plan amendment. The proposed Plan amendment provides for the development of a 1,440 acre site (Drop 31) in the southeastern portion of the planning area and downstream areas tributary to the Salton Sea. Annual rainfall is extremely limited and no impermeable surfaces are expected to be constructed. The proposed amendment would have the two-fold effect of providing an expansive OHV use area more than twice the size of any other area within the CDCA planning area, and would also make provision for future multi-agency planning for additional OHV areas. The amendment would also provide viable alternatives to the current and extensive, unauthorized use of other areas including major drainages, and with sensitive biological resources.

Motorized Vehicle Route Designations. Potential impacts to water resources and quality associated with proposed amendments to this CDCA Plan element are limited by the management strategy incorporated into the proposed Plan amendment. The proposed amendment to the CDCA Plan would reduce the number and miles of available routes of travel for motorized vehicles to 60 miles from the current $133 \pm$ miles, thereby reducing by more than half the miles available for this activity. The average level of use on these routes of travel has been estimated for high and low-activity periods: 5 average daily trips (ADT) on weekdays and during all days in the summer; and 25 ADT on weekends and during hunting seasons. Based upon current knowledge and understanding of this use and its potential to impact surface and/or ground water resources, it is not believed that the proposed CDCA Plan amendment will result in significant water resource/quality impacts. Nonetheless, the BLM would apply management provisions and regulations to the use of such routes.

Special Recreation Management Area. The proposed amendment to the CDCA Plan would designate the Mecca Hills and Orocopia Mountains Wilderness Areas as special recreation management areas (SRMAs). The proposed management strategy would include minimized motorized and mechanized equipment intrusions, prescriptive measures to protect wilderness values, and the creation of semi-primitive motorized recreation opportunities on public lands surrounding the two wilderness areas. OHV use would not be a part of these use areas. Given the location of these areas in a region of very low annual precipitation and surface runoff, the proposed amendment would not be expected to have a significant impact on surface or ground water resources or quality. Designation of the Mecca-Orocopia SRMA would result in no significant impacts to water resources or quality, or hydrology processes.

Stopping, Parking and Vehicle Camping. Limiting stopping, parking, and vehicle camping to within 100 feet of the roadway centerline within sensitive areas, such as ACECs and conservation areas, would reduce soil erosion and associated hydrologic disturbances, such as alterations to drainage patterns and rates. Said activities would be prohibited altogether within wilderness areas. The impacts to air quality would be essentially the same as those identified for motorized vehicle access route (see above). Therefore, potential impacts to regional water resources and quality associated with this component of the proposed Plan amendment are expected to be less than significant.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Alternatives A, B and C would provide additional water resources for bighorn sheep, thereby improving their survivability during the hot, dry summer months.

Hiking, Biking and Equestrian Trails. Although some soil erosion and alterations in drainage patterns and rates can be attributed to trail use and new trail development, these occurrences are also a product of trail design, quality of trail maintenance, weather conditions, and other factors. Proposed limitations on trails use within Peninsular bighorn sheep habitat would result in only minimal reductions in soil erosion and associated hydrologic effects. Mitigation measures to minimize soils and hydrologic impacts would be addressed as site-specific trail projects are proposed, which are expected to keep potential impacts to water resources and quality below levels of significance.

4.1.8 Biological Resources

Wild and Scenic River Recommendations. The W&SR recommendations have no direct impact on biological resources. Subsequent interim management measures for river segments recommended eligible for wild and scenic river consideration would provide additional protections, such as no new dams, thereby providing positive benefits for listed species and other biological resources. For those river segments found ineligible, no new impacts to biological resources would result: most are already in protective status, such as areas of critical environmental concern and wilderness.

Visual Resource Management. The assignment (Alternatives A, B and C) or no assignments (Alternative D) of VRM classifications would have no impact on biological resources, as such classifications are based on analyses of existing land uses and landscape quality, whether assessed at time of planning or during analyses of site-specific projects.

Land Health Standards and Air Quality. Management of all activities in accordance with regional land health standards (Alternatives A, B, C and D) would help maintain biological values on BLM-managed lands, especially maintenance of native vegetation and control of noxious weeds and exotics.

Multiple Use Classification. The assignment of multiple use classifications 'I' for intensive uses and 'M' for moderate uses would allow for more development of the public lands, which may result in some loss of native vegetation. Federally listed species would still need to be addressed through Section 7 consultation with the US Fish and Wildlife Service. Assignment of multiple use classification 'L' would result in less loss of native vegetation than class 'M' or 'I' lands. Unclassified lands are similarly impacted as class 'I' lands, unless these lands are within a special area.

Habitat Conservation Objectives. Management of all activities in accordance with habitat conservation objectives (Alternatives B and C) would help maintain biological values on BLM-managed lands within conservation areas, and would provide landscape level conservation of sensitive species. Alternatives A and C would result in no new impacts to biological resources. Sensitive species must still be addressed in accordance with Section 7 of the Endangered Species Act.

Fire Management Categories. The assignment of fire categories (Alternatives B and C) would benefit biological resources by addressing the relationship of specific habitat types to their natural fire regime. Immediate suppression is a critical element of fire management in desert communities because fire historically has never played a large role in the development and maintenance of these communities. Prescribed fire may be utilized as a resource management tool in very select situations, for example to effectively manage exotic vegetation. Use of fire in chaparral and montane habitats would help to reduce senescence of native vegetation in these fire dependent habitats. Absent a landscape perspective for managing fires (Alternatives A and D), vegetative senescence in montane and chaparral communities would likely continue. The site specific impacts of a prescribed burn would still need to be analyzed in a subsequent environmental review document.

Special Area Designations. No direct impacts to biological resources would occur as a result of designating new ACECs or wildlife habitat management areas (Alternatives A, B and C). The designation would provide the basis for establishing additional management measures, such as habitat conservation objectives, which provide guidelines for maintaining natural biological values on BLM-managed lands within these special areas.

Land Tenure Exchange and Sale Criteria. Establishment of land exchange and sale criteria (Alternatives B and C) would ensure that all exchanges in the Coachella Valley would benefit the conservation areas and biological resources contained therein. Without these criteria (Alternatives A and D), impacts to sensitive species would still need to be considered in accordance with Section 7 of the Endangered Species Act, absent a landscape approach to multi-species management.

Land Tenure Acquisition Criteria. Establishment of land acquisition criteria (Alternatives B and C) would ensure that all acquisitions in the Coachella Valley would benefit the conservation areas and biological resources contained therein. Without these criteria (Alternatives A and D), impacts to sensitive species would still need to be considered in accordance with Section 7 of the Endangered Species Act, absent a landscape approach to multi-species management.

Management of Acquired Lands. Establishing management direction for newly acquired lands (Alternatives A, B and C) reduces the need for additional planning and provides immediate guidance for conserving biological resources contained therein.

Communication Sites and Utilities. Alternatives A, B and C provide additional protections for biological resources within conservation areas, as communication sites and utilities would be subject to the habitat conservation objectives. While Alternative C would conceptually provide the most biological protection by being the most restrictive, wind parks, utility lines and communication sites already exist within confined areas, depending on site suitability and existing corridors.

If no areas were designated at this time (Alternative D), sensitive resources would still need to be taken into consideration when evaluating the compatibility of land use proposals on the BLM-managed lands; however, this evaluation would occur on a project-by-project basis, absent a landscape level multi-species management approach and few opportunities for off-site mitigation.

Sand and Gravel Mining. Alternatives A, B and C provide additional protections for biological resources within conservation areas, as sand and gravel mining would be subject to the habitat conservation objectives. While Alternative C would conceptually provide the most biological protection by being the most restrictive, sand and gravel mining already exists within confined areas, depending on quality of the material found at a particular site.

If no areas were designated at this time (Alternative D), sensitive resources would still need to be taken into consideration when evaluating the compatibility of land use proposals on the

BLM-managed lands; however, this evaluation would occur on a project-by-project basis, absent a landscape level multi-species management approach and few opportunities for off-site mitigation.

Livestock Grazing. Under the “no action” alternative (D), cattle grazing in the Whitewater Canyon allotment would continue, subject to terms and conditions outlined in biological opinions issued by the US Fish and Wildlife Service on March 14, 1994 and in 1997 addressing desert tortoise, and any additional terms and conditions identified in subsequent biological opinions addressing the arroyo toad, least Bell’s vireo, Southwestern willow flycatcher and triple-ribbed milkvetch. All of these species are Federally listed as endangered, and are found or have habitat within the allotment. Through the use of terms and conditions outlined in biological opinions, the likelihood of “jeopardy” is diminished as a result grazing activities. Nonetheless, adverse impacts to native biological resources may occur as a result of grazing activities, if grazing management is not designed to control or minimize effects like accelerated invasion of exotic grasses, trampling of sensitive and soils, diminished water quality, and diminished proper functioning condition of riparian areas.

In 1999, the BLM conducted Rangeland Health Assessments on the Whitewater Canyon allotment and found areas not meeting the National Fallback Standards for upland soil permeability, riparian health, and stream morphology. Since 1999, cattle have been temporarily removed from the allotment in order to improve rangeland health. Recent drought conditions have not allowed adequate assessment of possible recovery due to rest.

Range improvements are a necessary component of grazing management to control and care for livestock and reduce impacts to vegetation and soils from trampling. As conditions change over time, and if resource conditions as measured through trend monitoring and rangeland health assessments dictate, new range improvements may become necessary. These range improvements would be addressed through site specific environmental and biological assessments.

Alternatives A, B and C would all improve conditions for native biological resources, through rest from livestock grazing use. For example, disturbance that may foster spread of exotic grasses would be diminished, reduced trampling of soils should also affect areas where soil profiles are sensitive, there would be fewer pollution sources potentially affecting water quality, and rest is expected to improve proper functioning condition of riparian areas. All of these would contribute to improved habitat for sensitive species, especially desert tortoise, arroyo toad, least Bell’s vireo, southwestern willow flycatcher and triple-ribbed milkvetch.

Wild Horse and Burro Program. Alternatives B and C would result in the eventually removal of the branded horses in Palm Canyon, thereby reducing grazing pressures on native vegetation, reducing competition for bighorn sheep forage, and reducing soil trampling and erosion.

Retaining the herd management areas (Alternatives A and D) and allowing wild horses and burros to occupy the public lands, would result in continued grazing pressures on native vegetation, continued competition for bighorn sheep forage, and continued soil trampling and

erosion. Cumulatively, these impacts would be limited as herd management levels are maintained at 6 horses in Palm Canyon and 16 burros in Morongo.

Motorized Vehicle Area Designations. 1040 acres of public land in the Drop 31 off-highway vehicle open area (Alternative B) would be exposed to accelerated soil erosion and native vegetation loss. Unauthorized motorized vehicle intrusions into the adjacent wilderness area would disturb desert bighorn sheep and possibly discourage use of the Coachella canal to drink water. While use of the canal by bighorn sheep is not encouraged, there are not enough drinking sources in the wilderness areas to support the bighorn sheep population. Implementation of the guzzler installation program proposed through the Northern and Eastern Colorado Desert (NECO) Plan would provide alternative water sources. Milkvetch is a plant that thrives in disturbed areas, such as sandy washes in Drop 31. After germination, the plants would be exposed to crushing by vehicles.

Under Alternatives A and D, 3800 acres of public land would be available for open off-highway vehicle use, and would be exposed to accelerated soil erosion, native vegetation loss, crushing of native plants and animals, and crushing of burrows. Alternative C provides no off-highway vehicle open areas, thereby minimizing disturbance to native species and their habitats, assuming sufficient BLM presence on-the-ground to enforce the area closures.

Motorized Vehicle Route Designations. Various species are particularly sensitive to impacts by motorized vehicles. Flat-tailed horned lizards, desert tortoise, and pocket mice are prone to crushing by vehicles, as well as the burrows of burrowing owl, giant sand treader cricket, Jerusalem cricket and round-tailed ground squirrels. Le Conte's and Crissal thrashers are sensitive to noise disturbance during nesting season, December through June. Uncontrolled off-road motorized-vehicle use results in destruction of native vegetation, including listed plant species, soil compaction, accelerated soil erosion, and destruction of micro-habitats for endemic species like Coachella milkvetch, Little San Bernardino Linanthus, Mecca aster, Coachella Valley grasshopper, and Casey's June beetle. In addition, uncontrolled off-road motorized vehicle use may result in the spread of noxious weed species such as salt cedar (*Tamarix ramosissima*). The level of vehicle use on a road (frequent, occasional, or rare) appears to influence the level of response by bighorn sheep. Frequent vehicle use of a road (for example, Highway 74) creates a barrier to movement of bighorn such that few cross Highway 74. Habitat fragmentation caused by heavy use of roads may result in net loss of habitat used by bighorn sheep (Papouchis et al. 2000). However, bighorn sheep may adapt to occasional use of rural roads, timing their use to coincide with low use levels (Papouchis et al. 2000, Krausman and Etchberger 1989).

Under Alternatives A and D, 71 miles of existing routes on BLM-managed lands would be available for off-highway vehicle use; existing impacts to biological resources would continue. Under Alternative B, 45 miles of routes would be available for off-highway vehicle use, while reducing impacts from motorized vehicle use, especially in sensitive areas. Under Alternative C, 25 miles of routes would be available for off-highway vehicle use, which would noticeably reduce motorized vehicle access opportunities and minimize disturbance of any kind in a variety of habitats, assuming sufficient BLM presence on the ground to enforce the closures.

Under Alternative A, management of vehicle access to the Dunn Road would be primarily for administrative purposes such as flood control, law enforcement, search and rescue, and fire control, rather than research and recreational uses. Levels of use are apparently not enough to prevent bighorn sheep from crossing or using habitat adjacent to the road and as such is probably not a source of habitat fragmentation. Peninsular Ranges bighorn sheep have been observed on and adjacent to the Dunn Road during the past two years (BLM files) and historically used Cathedral Canyon for lambing and rearing and for water (K. Brennan personal communication). Cathedral Canyon currently is the northern-most lambing area in the Santa Rosa Mountains. Lambs have been documented in Cathedral Canyon in 1995 and 1997 (USFWS 1999). Bighorn sheep habituate to regular, predictable uses and exhibit less response less to such uses (Geist 1971, Papouchis et al 2000). Multiple land owners on the Dunn Road make single-agency management decisions impossible. BLM can manage and patrol the BLM-managed portions of the Dunn Road for illegal off-highway vehicle (OHV) use, but without access through privately owned parcels, illegal OHV use will occur (BLM files 2002). During 2002, BLM lost access to parts of the Dunn Road due to acquisition of a parcel by a private citizen. Prior to that, BLM patrolled the road regularly for illegal OHV use and compliance was reasonable. However, since BLM has lost access through the private parcel, illegal OHV use has increased. Motorcycles and ATVs have been observed coming in through the Goat Trails area of Palm Springs and plant damage has been noted by BLM staff (BLM files 2002). This activity is unpredictable in location and timing and as such is more likely to impact bighorn sheep than regular patrols. Regular law enforcement patrols of Dunn Road would help minimize and control illegal off road vehicle use.

Alternative B is similar to A except that it would allow for additional permitted uses of the Dunn Road such as recreation and research. Recreational use of publicly owned portions of the Dunn Road would be contingent upon acquiring access across private lands and compliance with the terms of a Biological Opinion from the USFWS. According to a Biological Opinion prepared for BLM in 1999, recreational use of the Dunn Road would not be likely to jeopardize recovery efforts of Peninsular bighorn sheep if certain conditions were met such as: 1) the amount of time spent on the road was minimized; 2) the number of vehicles allowed per day was held to a strict minimum so that bighorn sheep would have substantial opportunities to cross lower Dunn Road; and, 3) the type of human disturbance was limited to jeeps driving on the road (no stopping or getting out allowed). Access to the Dunn Road for research would enable researchers to collect data on bighorn sheep and other species of plants and animals inhabiting the area. Increased knowledge may increase management options for desert-adapted species such as the desert tortoise, bighorn sheep, and others.

Alternative C would prohibit use of the BLM-managed portions of the Dunn Road and allow the road to be reclaimed naturally over time. This alternative, while on the surface reducing impacts to bighorn sheep, may in fact, cause greater impacts to sheep. Lack of management presence on the Dunn Road following denial of access to BLM across a privately-owned parcel has resulted in increased illegal OHV activity on Dunn Road which potentially impacts bighorn sheep (See discussion under Alternative A).

Special Recreation Management Area. No direct impacts to biological resources would occur as a result of establishing a special recreation management (Alternatives A, B and C). The designation would provide the basis for establishing additional management measures in order to better protect biological values in this area, such as desert bighorn sheep. Eight guzzlers are proposed through the Northern and Eastern Colorado Desert (NECO) Plan to be installed in the Orocopia Mountains which this plan is honoring. The objective is to discourage sheep from using the canal for water and to make better use of the entire range.

Stopping Parking and Vehicle Camping. Limiting parking within conservation areas would minimize potential conflicts with multi-species habitat conservation (Alternatives A-B and C).

Peninsular Ranges Bighorn Sheep Recovery Strategy. The proposed recovery strategy (Alternative B) seeks to reduce overall levels of disturbance to bighorn sheep from all activities as equitably as possible. Alternative A seeks to reduce disturbance to bighorn sheep, focusing on recreational trail use, motorized vehicle access and elimination of feral horses. Alternative C seeks to further reduce (compared to Alternative B) overall disturbance generated from all human interactions with bighorn sheep.

Land use plan decisions common to all alternatives

1. Habitat loss is the leading cause of species endangerment and the leading threat to global biodiversity (Groombridge 1992, Noss and Murphy 1995). Approximately 18,500 acres of suitable bighorn habitat has been lost to urbanization and agriculture along the urban interface between Palm Springs and La Quinta (USFWS 2000). Habitat acquisition would benefit bighorn sheep by minimizing habitat fragmentation along the valley-mountain interface.
2. Fixed-winged aircraft have little or no impact to sheep above 100-m (Krausman and Hervert 1983). However low-level aircraft flights may have an impact on sheep. Anza-Borrego Desert State Park has reported that low-level military overflights cause flight in bighorn sheep (Mark Jorgenson, personal communication). In addition, stress and behavioral changes have been documented to result from the use of helicopters for annual population surveys and captures. Heart rate, body temperature, energy expenditures, hormone levels and blood pressure have been shown to elevate during helicopter pursuit and subsequent capture of bighorn sheep (MacArthur et al., 1986, Martucci et al., 1992, Kock et al., 1987.) In addition, temporary disruption of normal movement and social patterns occurs. Bighorn may shift habitat use which may bias estimates of habitat use, (Bleich et al. 1994), population size (Bleich et al. 1990), and home-range size (Miller and Smith 1985).
3. Public information and awareness is a critical component in the recovery of threatened and endangered species and efforts to prevent future listings. Effective outreach programs increase the public's knowledge of the niche that a species occupies and the relationship between the human environment and the wildland environment.

4. Competition between feral horses and bighorn sheep have not been extensively studied, but increasing horse populations were reported to coincide with decreasing bighorn sheep populations in the Silver Peak Range in Nevada (McQuivey 1978). Similarly, Anza-Borrego Desert State Park reported that during the 1999 and 2000 waterhole bighorn counts, the continuous presence of 16 and 21 feral horses, respectively, coincided with the absence of bighorn coming to water over both census periods (USFWS 2000). Staff at Anza-Borrego Desert State Park have observed that during periods of poor forage conditions, horses congregate around water sources more than usual, causing damage similar to that of feral burros (Seegmiller and Ohmart 1981) by consuming the best available forage and fouling surface waters (USFWS 2000).
5. Bighorn sheep rely on keen vision and open habitats to detect and evade predation (Risenhoover and Bailey 1985, Giest 1971). Vegetation encroachment reduces visibility and may result in a net loss of bighorn habitat (Fairbanks et al. 1987, Etchberger et al. 1989, Gionfriddo and Krausman 1986). The rate of vegetation change in the western United States has been unprecedented during this century (Miller and Wigand 1994). Fire suppression has played a major role in vegetation change over time (Miller 1999). An effective fire management program will help maintain bighorn sheep habitat in the Peninsular Ranges by minimizing encroachment of vegetation.
6. Heavy road use may fragment bighorn habitat and interfere with movement patterns (Papouchis et al. 2000, Jorgensen 1974, Leslie and Douglas 1980, Miller and Smith 1985). Miller and Smith (1985) documented that 25% of bighorn sheep (45 out of 180 observations) immediately reacted to a parked jeep or truck by either walking or trotting away and returning to their original activity within 10 minutes, or by running away from the area and not returning to their original activity. Jorgensen (1974) documented bighorn sheep avoiding a water source during weekends when vehicle use of the area adjacent to the water sources was high. Rubin et al. (1998) proposed that construction and use of roads may have increased the fragmentation of ewe distributions in the Peninsular Ranges. Four of the boundaries between the 8 ewe groups described coincided with paved roads (Highway 74 in the Santa Rosa Mountains, road S-22 in the San Ysidro Mountains, Highway 78 between the San Ysidro and Vallecito Mountains, and road S-2 between Carrizo Canyon and the Vallecito Mountains. Ewes have been documented crossing Highway 74 during the 1970's by California Department of Fish and Game biologists (Rubin et al. 1998) and by Bureau of Land Management staff in 2001 and 2002. Rams have been documented crossing Highway 74 more frequently.
7. Because of the checkerboard landownership pattern in the Santa Rosa and San Jacinto Mountains, participation in an interagency, multiple jurisdiction trails use management plan would provide a relatively seamless, landscape level approach to trails management in bighorn sheep habitat.

Alternative A

1. Bighorn distributions in the Peninsular Ranges have been linked to proximity to water sources. Cunningham and Ohmart (1988) found that bighorn sheep were more likely to be found near water in the Jacumba Mountains and Blong (1967) reported bighorn sheep using Magnesia Canyon Springs consistently. During the lambing and rearing season (approximately January through June), ewes increase their intake of water to help meet demands of lactation. Generally, ewes and lambs are found within 2 miles of water. In the Peninsular Ranges, most water sources are ephemeral. Natural tanks, or tinajas, are filled by run-off from winter and spring rains and dry up during the hot summer months. Tamarisk has invaded many natural springs and areas around tinajas in the Peninsular Ranges, reducing water availability for bighorn sheep. Eradication of tamarisk enhances the availability of water and may prevent the necessity of installing artificial water sources. Tamarisk eradication can result in immediate reappearance of surface water (Barrows 1994, T. Egan 2001 personal communication) which can help expand bighorn sheep distribution.

The installation of artificial water sources would have a number of impacts, both positive and negative, on bighorn sheep. On the positive side, year-round water would be provided for bighorn sheep, facilitating range expansion and increase in local populations. From a negative standpoint, artificial water sources in desert environments may provide breeding areas for disease vectors such as *Culicoides* sp. (Mullens 1989). Additionally, *Elaeophora schneiderii* has been detected in desert bighorn sheep in New Mexico and it has been suggested that water sources in desert environments provide a breeding ground for the horsefly which is the vector for this disease (Hibler and Clark 1970, Boyce et al. 2000). Desert-dwelling species have evolved in extremely arid environments and have adapted to the stochastic nature of water availability in the desert. By providing artificial sources of water for desert dwellers, including bighorn sheep, it may reduce, over time, the ability of these species to survive long-term drought, (Broyles 1995, Broyles and Cutler 1999). Finally, predation may increase as a result of installing an artificial water source (DeStephano, Schmidt, deVos 2000). Long-term monitoring and research indicates that predators such as mountain lions hunt in and around water sources. A permanent water source may attract mountain lions and cause increased predation on bighorn sheep. In addition to mountain lions, coyotes and bobcats are known to prey on lambs and yearling bighorn sheep thus impacting recruitment.

The connection between increased water availability and increased wildlife populations is unclear (Broyles and Cutler 1999). Krausman and Etchberger (1993) did not detect an increase in productivity of mountain sheep in the Little Harquahala Mountains in Arizona when water catchments were added; in fact, survival decreased. Smith and Krausman (1988) suggested that bighorn sheep likely existed for thousands of years without free water, and although densities are low, their number may be within constraints of available resources. Development of artificial water sources require a major commitment of funds and labor; however, the literature fails to establish a cause

and effect relationship between additional water sources and increased wildlife populations (deVos and Clarkson 1990). Researchers suggest that installation of new waters be carefully considered. Smith and Krausman (1988) recommend that before adding water to bighorn habitat, the need for water should be well-established. Lee (1993) suggested that bighorn sheep in Mexico are doing well without water development while in the United States populations continue to decline despite a massive water development program over the past 3 decades.

2. Excluding sheep from the urban areas is an important component of recovery. Bighorn sheep in the Santa Rosa Mountains have come down to water at golf courses and homes along the urban-wildland interface for the past 30 years (Blong 1967, DeForge ??). The knowledge of these sources of food and water are passed each year to successive generations of bighorn sheep. Threats in the urban interface include poisonous plants such as Oleander, a popular exotic plant used for landscaping, drowning in swimming pools, encounters with domestic dogs, and automobile collisions. Fences impact bighorn sheep by cutting off access to food and water. Eradication of tamarisk and improvement or construction of additional water sources should occur prior to completion of a fence project so that bighorn sheep are not left high and dry during critical periods of time. Fences should be constructed in coordination with USFWS to ensure minimal impact to sheep.
3. The use of helicopters in big game management and research has been well documented (Thompson and Baker 1981). Bighorn sheep equipped with radio or satellite collars provide critical information on habitat use, distribution, movements, and home range size of individual animals. This information is critical for management and recovery of bighorn sheep in the Peninsular Ranges. However, such use is not without cost to the animals. Pursuit and capture of wild ungulates causes intense, short-term stress to the animals. Heart rate, body temperature, energy expenditure, hormone levels, and blood pressure have all been shown to elevate under stress (MacArthur et al., 1986, Martucci et al., 1992, Kock et al., 1987). In addition, some temporary disruption of normal movement and social patterns would occur. Sheep not captured, but near a capture area, may also experience stress and habitat shifts due to helicopter disturbance. Krausman and Hervert (1983) found that bighorn sheep at Cabeza Prieta National Wildlife responded to aircraft flying below 100-m but that above 100-m no response was detected.

Bighorn population surveys are conducted via helicopters because the aircraft must be close enough to the animals for the observers to determine sex and age. Aerial surveys of collared sheep from helicopters may induce short-term stress and cause temporary shifts in habitat use (Bleich et al. 1994), potentially biasing estimates of habitat use and distribution (Bleich 1993), population size (Bleich et al., 1990), and home-range size (Miller and Smith 1985). Bleich et al., (1994) cautioned investigators to consider the potential effects of aerial sampling on the condition and perhaps reproductive success of large mammals (Murphey et al., 1993 cited in Bleich et al., 1994). Although capture indisputably does cause stress and habitat displacement to bighorn sheep, most

captured and collared sheep appear to have few, if any, long-term effects from the capture. Sheep generally resume normal feeding, movement, activity patterns, and social status within a few days of helicopter surveys or capture.

Research tells us that ewes are more sensitive to disturbance during the lambing season (Geist 1971, Turner and Hansen 1980, Light and Weaver 1973, Wehausen 1980). The Recovery Plan for Peninsular Ranges Bighorn Sheep (USFWS 2000) recommends that disturbance be minimized to the extent practical during lambing season, including reductions or elimination of trail use and use of non-paved vehicle routes. The use of helicopters for capture or retrieval of dead sheep during the lambing season may cause temporary abandonment of habitat during a critical season.

Causes of lamb mortality are poorly understood. Capturing, collaring, and monitoring bighorn lambs provides cause-specific mortality data. These data could be used to detect diseases, predation, and urban interface issues, which may limit recruitment and thus impede recovery. Lambs may be more vulnerable to capture and handling related stress than adults due to their age and inexperience. Rates of post-capture lamb mortality could be influenced by capture and handling by increasing susceptibility to disease, predation, injury, and potential abandonment by ewe. During 4 years of a lamb mortality study conducted by the Bighorn Institute and the California Department of Fish and Wildlife, there have been no mortalities directly associated with capture of lambs. Additionally, there is no evidence that there have been any interruptions in suckling bouts or abandonment by ewes during this study to date (Bighorn Institute unpublished data). This population has experienced high lamb mortality for over a decade, and the causes need to be identified. The risks associated with capture of lambs may be counterbalanced by the quality of information collected.

4. Biologically there would be no impact to bighorn sheep from the distribution of research and monitoring activities. However, there is some concern from local researchers that such information could be misinterpreted and ultimately hamper recovery efforts by resulting in more habitat loss through urban development.
5. Mountain lion predation on bighorn sheep can have a significant impact on small populations (Wehausen 1998) and is cited as one of the primary mechanisms driving the decline of bighorn sheep in the Peninsular Ranges (Deforge ???, USFWS 2000). Sixty-nine percent of 61 mortalities of radiocollared sheep from 1992 to 1998 between Highway 74 in the Santa Rosa Mountains and the Mexico border are attributed to mountain lions (Hayes et al. 2000). The Recovery Plan for Peninsular Ranges Bighorn Sheep (USFWS 2000) contains provisions for predator control, including a 3-stage trigger to determine the necessity of such a program. Because nearly 28% of habitat in the Peninsular Ranges is managed by the BLM, a multiple agency approach is necessary for the most effective management and control of predators.

6. Augmentation and reintroduction programs are recognized conservation tools and have been used extensively to manage bighorn sheep populations (Bleich et al. 1990, Ramey 1993). However, these tools should be used in support of other conservation measures. Additionally, decisions regarding augmentation and reintroduction need to consider the consequences to genetics, disease, and population structure. Reintroduction and augmentation may be used to (re)establish ewe groups and restore connectivity among neighboring groups. Augmentation may play an important role in conservation of bighorn sheep because habitat use patterns are learned from experienced animals. Bighorn sheep are generally poor colonizers of available habitat because habitat use patterns are learned from experienced animals (Risenhoover 1988). Once ewes discontinue use of a particular area, it may be difficult for inexperienced sheep to establish in this area.

Preferred Alternative (B)

1. Same as Alternative A
2. Same as Alternative A
3. Reduction of impacts resulting from all land uses including trail use, motorized vehicle use, permitted uses, utility corridors, communication sites, casual uses, and research will facilitate recovery of bighorn sheep (USFWS 2000, Ramey, personal communication 2002). (Also see Alternative A for further discussion of impacts from research). Allowance of research will add to the base of knowledge and result in improved management actions.
4. Access to information about recovery actions on BLM-managed public lands provides the public with updated information, reduces the incidence of mis-information and rumor, and may garner increased support of recovery actions.
5. As discussed under Alternative A, helicopters cause stress, physiological change, and alteration of habitat use patterns to bighorn sheep. Reducing impacts from helicopters and direct handling of wild sheep while still gathering much needed information may facilitate recovery. When capture and handling cannot be avoided, use of satellite collars may reduce further stress during research projects.
6. Mountain lion predation has been identified as a causal mechanism in the decline of bighorn sheep in the Peninsular Ranges (USFWS 2000, Hayes et al. 2000, DeForge...). A study is currently underway in Anza-Borrego Desert State Park investigating the relationship between bighorn sheep, mule deer, and mountain lions. Initiation of such a study in the northern Santa Rosa Mountains would provide insight into the role mountain lion predation plays in determining the population dynamics of bighorn sheep between Highway 74 and Palm Canyon.
7. Small populations have substantially higher risk of extinction than larger populations (Berger 1990, Berger 1999, Wehausen 1999). Currently, there are 31 sheep in the San Jacinto Mountains sub-population; historical estimates of this group are as high as 200. Of these 31, only 8 ewes are of breeding age. The unbalanced sex ratio may cause increased pressure on ewes during the rut and may be impeding growth of the population. The San Jacinto Mountain herd was augmented in 1997 with three captive reared ewes from the Bighorn Institute (Bighorn Institute, unpublished data). Although none of the ewes survived more than 10 months, augmentation helps the population to

resist local extirpation. Augmentation, which includes capture, translocation, and time spent in captivity, would cause stress to the sheep. The translocation of wild-reared or 3 captive-reared sheep could cause social disruption to the resident sheep in the San Jacinto Mountains. Newly introduced bighorn in New Mexico did not integrate immediately with the resident population and translocated ewes spent an average of 5 months on the fringes of the resident population before integrating (Huddleston-Lorton et al., 2000, Ahlm 2001). In addition, translocated sheep spent may spend less time in suitable habitat and may have an increased risk of predation due to unfamiliar habitat (Huddleston-Lorton et al., 2000).

Alternative C

1. Same as Alternative A
2. Same as Alternative A
3. Limiting the number of sheep that can be captured on BLM-managed public lands will not necessarily reduce the total number of sheep captured in the Peninsular Ranges. BLM manages approximately 28% of essential habitat throughout the Peninsular Ranges and within the CDCA plan amendment planning area, only about xx%. Similarly, limiting captures to areas outside designated Wilderness Areas would effectively reduce surface disturbance but not necessarily reduce the number of sheep captured. In order to obtain the most accurate population estimates, it is critical to distribute collars throughout the range. Limiting the number of mortality retrievals during the lambing season would reduce the incidence of stress to bighorn sheep during this critical time period.
4. Limiting predator control to mountain lions *known* to kill bighorn sheep would reduce the incidence of random take of mountain lions. Not all mountain lions kill bighorn sheep. In Alberta, Canada, Ross et al. (1997) found that during 1985-1986 and 1993-1996, lions killed nearly 320 ungulates; 29 of those kills were bighorn sheep. Eight percent of these lion-killed sheep were attributable to a single adult female lion. The authors concluded that the presence of one or a few individual specialist predators may strongly and unpredictably influence demography of small ungulate populations (Ross et al. 1997). The removal of this single female resulted in a reduction of over-winter mortality of bighorn sheep in southwestern Alberta.
5. Same as Alternative A.

No Action Alternative (D)

1. Same as Alternative A.
2. Same as Alternative A.
3. Same as Alternative A.
4. Same as Alternative A, number 6.

Hiking, Biking, and Equestrian Trails.

Preferred Alternative (A, B, & C). A multiple agency, multiple jurisdiction trails management plan will increase the effectiveness of managing trails in the Peninsular Ranges because of the checkerboard pattern of landownership. Limitations on trail use during the lambing season and/or hot summer months would benefit bighorn sheep by reducing the overall level of disturbance to sheep (see also alternatives above).

No Action Alternative (D). New trails would be developed under current Federal law and regulation. Impacts to bighorn sheep would be assessed for each specific project proposal.

4.1.9 Cultural Resources and Native American Concerns

The term “cultural resources” will be used to refer inclusively to both historic properties and significant Native American values. The impacts of the following proposals are evaluated with the assumption that significant, but as-yet unidentified, cultural resources may occur on all lands managed by the BLM. Site specific actions such as construction of facilities will be subject to additional environmental review in accordance with the National Environmental Policy Act, which affords protection to significant cultural resources as prescribed by the National Historic Preservation Act, 36 CFR 800, and other applicable regulations and guidelines.

Wild and Scenic River Recommendations. The recommended rivers contain important archaeological and Native American resources which contribute to the outstanding resource values of the rivers. Designation of the rivers by Congress would provide additional protection to cultural resources from surface-disturbing activities. However, increased visitation could result in potential adverse effects such as trampling of archaeological sites by visitors and collection of artifacts and native plant materials. Access to these rivers for Native American cultural purposes would not change with designation.

Visual Resource Management. No impacts to cultural resources or Native American concerns would occur as the VRM classifications are based on analyses of existing land uses and quality of landscapes. Areas with a high density of recorded archaeological sites and areas identified as sacred lands generally coincide with areas designated as VRM Class 1 or Class 2.

Land Health Standards and Air Quality. Implementation of land health standards may have positive impacts on cultural resources and Native American concerns through the prevention of erosion and the preservation or reintroduction of native plants (Roney 1977; U.S. Department of the Interior 1976). Deer grass and juncus, materials used in traditional basket-making, are native species that are frequently displaced by introduced species such as fountain grass. Specific measures needed to promote land health standards, such as removal of exotic species, which could affect cultural resources will be analyzed on a case-by case basis as part of the NEPA review process.

Multiple Use Classification. Lands currently classified as Class L will remain in that status. With the remaining lands currently “Unclassified”, cultural resources are at risk from unregulated uses of the lands such as off-road vehicle use. Designation of the unclassified lands as either Class C or Class L would afford greater protection to cultural resources by controlling multiple use of resources. Lands classified as Class M will allow a greater range of permitted activities and specific actions will be analyzed through the NEPA process. Effects to significant cultural resources from these uses will be avoided or mitigated. Class I (Intensive Use) provides for concentrated uses of lands and resources to meet human needs and could result in negative impacts to cultural resources.

Habitat Conservation Objectives. Adoption of habitat conservation objectives would provide additional protection to cultural resources as they call for at least 99% conservation of specific habitat types. These objectives limit surface disturbance, fostering native plants for cultural purposes. Alluvial Fan/Lowland Scrub and Riparian/Wetlands areas can be expected to contain the greatest density of cultural resources. Cahuilla villages are known to have been situated on alluvial plains. There is also a correlation between the presence of water and cultural resources. Specific actions, such as construction of new utilities within existing utility corridors, would be analyzed through the NEPA process and impacts to significant cultural sites would be avoided or mitigated.

Fire Management Categories. No impacts to cultural resources would result from designation of fire management categories. The potential for effects to significant cultural resources from prescribed fires will be analyzed through the NEPA process. Specific suppression activities will be evaluated for their potential for adverse effects to significant or sensitive cultural resources to the degree possible given concerns for protection of life and property.

Special Area Designations. Designation of lands as Wildlife Habitat Management Areas (WHMAs) will not affect cultural resources. Designation of new ACECs, or expansion of existing ACECs, could have both positive and negative effects on cultural resources. Positive effects would result from adoption of management plans which include limitation of uses to protect cultural resources. However, designation of an area as an ACEC may increase awareness of and visitation to the area.

Land Tenure Exchange and Sale Criteria. No impacts to cultural resources will occur. Both the proposed alternatives and the existing CDCA Plan provide for protection of significant cultural resources.

Land Tenure Acquisition Criteria. No impacts to cultural resources will occur. Both the proposed alternatives and the existing CDCA Plan provide for protection of significant cultural resources.

Management of Acquired Lands. No impacts to cultural resources will occur. Both the proposed alternatives and the existing CDCA Plan provide for protection of significant cultural resources.

Communication Sites and Utilities. The CDCA Plan calls for the avoidance of sensitive resources whenever possible in the evaluation of future energy and communication site proposals. Alternative D enforces the status quo and will have no effect to cultural resources. Alternatives A, B, and C would decrease the potential for effects to cultural resources by imposing restrictions on the placement of future communication and utility sites and by applying the habitat conservation standards to proposals within designated conservation areas. Alternatives C and D specifically call for proposed utilities to be designed or mitigation measures imposed to ensure avoidance of impacts to significant cultural resources.

Sand and Gravel Mining. Alternatives A, B, and C would decrease the potential for effects to cultural resources by imposing restrictions on the location of future sand and gravel operations or by applying the habitat conservation standards to proposals within designated conservation areas.

Livestock Grazing. Livestock grazing can have a negative impact on cultural resources by encouraging erosion, causing trampling and displacement of artifacts, and introducing non-native plant species (Roney 1977, U.S. Department of the Interior 1976). The Whitewater Canyon ACEC Management Plan identifies Whitewater Canyon as an area with significant Native American values. Little archaeological inventory has been completed in the grazing allotment, but it has the potential to contain historic properties given its identification as significant by Native Americans and because it contains a reliable water source and plant foods important to the Cahuilla and Serrano. According to records on file in the Palm Springs-South Coast Field Office, nine archaeological sites have been recorded on BLM managed lands within the Whitewater grazing allotment. Adoption of Alternative C would provide for protection of Native American values and historic properties from the effects of livestock grazing. Alternative B would provide the same protection to the northern part of the allotment. Alternative A would protect cultural resources and allow for cultural resource studies to be conducted and evaluated as a factor in the prescribed suitability studies.

Wild Horse and Burro Program. Horses and burros have the same effects to cultural resources as other livestock. In Palm Canyon significant cultural resources are frequently associated with water sources, which is where livestock will congregate if not otherwise managed. BLM managed lands within the HMA are known to contain significant cultural resources. Horse trails currently cross recorded archaeological sites, resulting in surface disturbance and accelerated soil erosion. Alternatives A and D would allow the numbers of animals in Palm Canyon and Morongo Canyon HMAs to remain as set in the CDCA plan; negative impacts to cultural resources would continue or increase. Alternatives B and C would prevent further negative impacts to cultural resources within the HMAs.

Motorized Vehicle Area Designations. None of the candidate "open" areas has been subjected to a complete and intensive cultural resources inventory. Approximately half of the Windy Point area has been inventoried and no cultural resources were identified. Less than 10% of the Indio Hills site has been inventoried. No cultural resources were identified as a result of this survey, however numerous archaeological sites, including prehistoric trail segments, exist within and adjacent to the Indio Hills. The nearby Willow Hole and Edom Hill areas are known to contain significant cultural resource values. No cultural resources surveys have been completed for the Iron Door site, but it also falls within the potentially sensitive Indio Hills. Three short trail segments have been recorded in the Drop 31 area. However, the area is less likely to contain a high density of archaeological sites than the previously-mentioned areas. A cultural resources inventory should be conducted prior to designation of an area as "open" to off-road vehicle use in order to avoid or mitigate effects to historic properties and significant Native American values.

Motorized Vehicle Route Designations. Designation of vehicle routes may have positive or negative impacts on cultural resources. Closure of routes leading to areas containing significant resources would provide an additional measure of protection. However, closure of routes may also preclude Native Americans from reaching traditional ceremonial or plant gathering areas. Closure of routes may also lead to increased usage of the routes that remain open. Stopping, parking, and camping are allowed within defined distances of open routes. Surface disturbance from vehicle traffic, construction of fire rings, and collection of artifacts would have a negative impact on significant properties adjacent to open routes.

Special Recreation Management Area. No impacts to cultural resources would occur from the designation of a special recreation management area. Specific actions such as construction of visitors' facilities or wildlife guzzlers would be addressed through the NEPA process.

Stopping, Parking and Vehicle Camping. Stopping, parking, and camping may have negative impacts on cultural resources through activities such as surface disturbance from vehicle traffic, construction of fire rings, and collection of artifacts. Limitation of the width within which motorized vehicles may pull off of an approved route decreases the potential for impacts to cultural resources.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Minimizing human disturbance in bighorn sheep habitat would have the concurrent benefit of reducing impacts to archeological sites within the same vicinity.

Hiking, Biking and Equestrian Trails. Some trails within the planning area lead to or pass through archaeological sites. Non-motorized use of trails may have a negative impact on cultural resources by increasing visitor traffic to sensitive cultural areas. In some locations current trail users have constructed cairns or used spray paint to guide others to cultural resources. Mountain bikes and horse traffic may increase erosion where trails pass through archaeological sites. Alternatives A, B, and C allow for limits to be placed on non-motorized trail use, including area closures, as needed to protect sensitive resources.

Construction of new trails could have the same negative impacts to cultural resources as above and would also result in new surface disturbance which may damage historic properties. Based on currently available data, only the trail corridor south of La Quinta appears to pose a potential conflict with cultural resource values: nine archaeological sites occur on BLM managed lands within this corridor. Of these nine sites, three appear to contain qualities which make them eligible for listing on the National Register of Historic Places. All of the proposed trail corridors occur in the Lower Sonoran life zone. Based upon data available in the Palm Springs-South Coast Field Office, this zone has a high potential to contain archaeological sites. Proposed trail corridors will be subject to cultural resource studies as part of their suitability analysis. Specific proposed trail routes would be analyzed through the NEPA process.

4.1.10 Air Quality

Air quality is an issue of regional concern in the Coachella Valley CDCA Plan area. In addition to discussions and assessments set forth in this section, refer to Appendix C for a more detailed discussion of BLM's proposed air quality management strategy, a summary of the Coachella Valley PM10 State Implementation Plan, and a draft air quality conformity analysis and determination for the Coachella Valley CDCA Plan Amendment.

Air Quality Management Strategy. The efficacy of the air quality management strategy is directly related to the impact of the selected alternative under each of the plan elements for the Coachella Valley CDCA Plan Amendment. The following is a summary description of the more pertinent plan elements affecting the efficacy of the alternative air quality management strategies, followed by an air quality impact analysis of each plan element.

Alternative A. Under air quality management strategy Alternative A, BLM would be opting to keep open the existing motorized-vehicle route network. Installation of new communication sites, wind parks, and sand and gravel mining operations would be permissible throughout the Coachella Valley. Authorized uses would still need to be in compliance with Coachella Valley PM10 State Implementation Plan and would include applicable measures to minimize fugitive dust emissions. Where feasible, BLM would install sand fencing to reduce the amount of sand flow and PM10 emissions off of the public lands.

Alternative B. Under the Alternative B air quality management strategy, BLM would be making a concerted effort to reduce PM10 emissions from the BLM -managed public lands, especially upwind of sensitive receptors, while still allowing for a reasonable level of multiple use of the public lands. The motorized-vehicle route network would be reduced by 20%, closing redundant routes in order to still allow for some vehicle access, and all informal off-highway vehicle "free-play" areas upwind of sensitive receptors (i.e. residents of the Coachella Valley). Installation of new communication sites, wind parks, and sand and gravel mining operations would be restricted to designated areas. These designated areas contain the best available resources for communication sites, wind parks, and sand and gravel mining, so as to not hamper the needs of the community for infrastructure. Where feasible, BLM would install sand fencing to reduce the amount of sand flow and PM10 emissions off of the public lands.

Alternative C is highly restrictive of multiple uses in an effort to reduce PM10 emissions from all public lands, even those downwind of sensitive receptors. The motorized-vehicle route network would be reduced by 30%, making several areas inaccessible by vehicle. No off-highway vehicle "free-play" areas would be allowed anywhere in the planning area. No new communication sites, wind parks, and sand and gravel mines would be allowed on the public lands. BLM would install sand fencing to reduce the amount of sand flow and PM10 emissions off of the public lands.

Alternative D. Absent a Bureau-initiated air quality management strategy, projects on BLM-lands would still be required to comply with National Ambient Air Quality Standard for PM₁₀; however a greater economic burden would be placed on private interests to attain the PM₁₀ standard valley wide.

Wild and Scenic River Recommendations. The preferred alternative includes eligibility recommendations to determine the appropriateness of designating wild and scenic rivers within the planning area. Prospective designations would apply only to BLM-managed public lands already under conservation management, including ACECs, wilderness areas and the San Jacinto/Santa Rosa National Monument. Future potential designation of wild and scenic rivers is not expected to result in air quality impacts. No impacts from the “no action” alternative.

Visual Resource Management. The proposed visual resource management classifications will not, in and of themselves, affect air quality. It is anticipated that future actions to preserve important visual and scenic components would not have an adverse impact on air quality. No impacts from the “no action” alternative.

Land Health Standards. Implementation of land health standards, especially minimizing soil erosion, would help to reduce potential PM₁₀ emissions by maintaining healthy landscapes.

Fire Management Categories. The adoption of the proposed fire management categories are designed to protect and enhance the variety of habitats found in the planning area. Fire suppression would be applied in a manner consistent with the preservation of these habitat values. The implementation of these fire management strategies is not expected to have an adverse impact on regional air quality. Any prescribed burning must be conducted in consultation with the South Coast Air Quality Management District in order to minimize potential adverse impacts.

Habitat Conservation Objectives. The proposed objectives seek to preserve 99% or more of the important habitats identified in the planning area, including (1) sand dunes and sand fields, (2) desert scrub communities, (3) chaparral communities, (4) desert alkali scrub communities, (5) marsh communities, (6) dry wash woodland and mesquite communities, (7) riparian communities, and (8) woodland and forest communities. The proposed objectives would protect vegetative cover and limit habitat and soil disturbance. Sand fencing would be installed in sand dunes and sand fields to minimize sand flow from these areas and to reduce PM₁₀ emissions.

Multiple Use Classification. Regardless of the multiple use classification assigned, future projects on BLM-managed lands would be subject to environmental review per the National Environmental Policy Act of 1969, the Clean Air Act, and State Implementation Plans for improving air quality. The multiple use classifications proposed under alternatives A, B and C would not, in and of themselves, affect air quality. Subsequent actions to use or conserve lands in the planning area would likely reduce air emissions, through application of air quality management requirements for permitted uses and implementation of habitat conservation objectives. All projects, including sand and gravel mining and off-highway vehicle open area

management on Class “I” lands, must conform to the National Ambient Air Quality Standards and would likely include mitigation measures to reduce air quality impacts.

Special Area Designations. Regardless of the special area designation, future projects on BLM-managed lands would be subject to environmental review per the National Environmental Policy Act of 1969, the Clean Air Act, State Implementation Plans for improving air quality, and conformance to the National Ambient Air Quality Standards. The special area designations proposed under alternatives A, B and C would not, in and of themselves, affect air quality. Subsequent actions to conserve lands within these special area designations would reduce air emissions. Overall, less surface disturbance would be allowed to conserve habitat for sensitive species within these special areas, resulting in lower air emissions. Air emissions would be reduced further through implementation of the air quality management strategy, land health standards and habitat conservation objectives.

Land Tenure Exchange and Sale Criteria. Alternatives B and C would establish criteria by which the appropriateness of proposed exchanges or sales of BLM lands would be judged. The goal of BLM’s exchange and sale program in the Coachella Valley would be to benefit CVMSHCP conservation areas and other special area designations. Subsequent actions to conserve these special areas would reduce air emissions from the public lands, such as implementation of habitat conservation objectives. Such actions would preserve habitat and associated vegetation cover, and preclude incompatible development. Management of the designated special areas would enhance the long-term protection of regional air quality.

Under Alternatives A and D, land exchange and sales would be considered on a case-by-case basis, subject to NEPA review, including consideration of potential adverse impacts to regional air quality.

Land Tenure Acquisition Criteria. Alternatives B and C would establish criteria by which the appropriateness of proposed acquisitions would be judged. The goal of BLM’s acquisition program in the Coachella Valley would be to benefit CVMSHCP conservation areas and other special area designations. Subsequent actions to conserve these special areas would reduce air emissions from the public lands, such as implementation of habitat conservation objectives. Such actions would preserve habitat and associated vegetation cover, and preclude incompatible development. Management of the designated special areas would enhance the long-term protection of regional air quality. Under Alternatives A and D, acquisitions would be considered on a case-by-case basis, subject to NEPA review, including consideration of potential adverse impacts to regional air quality.

Management of Acquired Lands. The preferred alternative (A-B-C) would provide management guidance for newly acquired and formerly withdrawn lands, precluding the need for additional planning in order to provide management direction for those lands. Subsequently, the air quality management strategy and other actions to reduce air quality impacts proposed through this Coachella Valley CDCA Plan Amendment, would apply to those newly acquired and formerly withdrawn lands without need for additional planning.

Communication Sites and Utilities. The issuance of new or renewed rights of way for windparks, communication sites and utilities would be required to comply with the rules and provisions of the 2002 Coachella Valley PM10 State Implementation Plan (CVSIP), as well as the habitat conservation objectives which would minimize surface disturbance. The best wind resource areas have already been developed into wind parks. No new communication sites are anticipated as satellite technologies are used more in the future. Some air emissions (although in compliance National Ambient Air Quality Standards) would nonetheless result from generation of fugitive dust (PM10) from construction activities, maintenance and use of roads, initial site disturbance for facilities (turbines, powerlines, substations, antennas, etc.).

Sand and Gravel Mining. The issuance of new or renewed rights of way for sand and gravel mining sites would be required to comply with the rules and provisions of the 2002 Coachella Valley PM10 State Implementation Plan (CVSIP), as well as the habitat conservation objectives which would minimize surface disturbance. Existing sand and gravel operations on BLM lands are already subject to a variety of requirements to control blowing sand and the emission of fugitive dust. Under Alternative B, sand and gravel mining would be restricted to State designated mineral resource zones, thereby further reducing the area of potential future PM10 emissions from sand and gravel mining. Under Alternative C, no sand and gravel mining would be allowed in the CVMSHCP conservation areas, virtually eliminating the potential for potential increases in PM10 emissions from sand and gravel mining on the public lands.

Livestock Grazing. The relatively low number of animal unit months (990, or 119 head of cattle) provided by the Whitewater grazing allotment would not perceptibly improve or degrade regional air quality under any of the livestock grazing alternatives. Locally, reduced grazing levels (Alternatives B and C) on the public lands would keep PM10 emissions down, in areas where trampling vegetation has reduced soil stability. In the same manner, compliance with rangeland health standards would also help to reduce localized PM10 emissions from grazing activities.

Wild Horse and Burro Program. The relatively low number of horses in Palm Canyon (eight animals) would not perceptibly improve or degrade regional air quality under any of the wild horse and burro alternatives. Locally, removing the horses (Alternatives B and C) would keep PM10 emissions down, as horses trample vegetation and contribute to accelerated soil erosion.

Motorized Vehicle Area Designations. Under Alternatives A and D, 2,360 acres of “open” off-highway vehicle areas would generate PM10 emissions upwind of sensitive receptors, with average weekly usage ranging from 320 to 600 vehicles during the cooler months. Motorized vehicles traveling on unpaved roads generate PM10 emissions; the relative amount depending on the velocity of the vehicle and prevailing wind speeds. At the 1,040 acre Drop 31 area, 250 to 500 vehicles use the area on a weekly basis. This area is downwind of sensitive receptors.

Under Alternative B, all historically used “open” areas upwind of sensitive receptors would be closed (2,360 acres) to off-highway vehicles. Only the 1,040 acre Drop 31 area, which is located downwind of sensitive receptors, would be available for “open” off-highway vehicle

use. Any valley-wide reductions in PM10 emissions upwind of sensitive receptors, will depend on the extent to which displaced off-highway vehicle enthusiasts use non-federal land instead of public land, or travel farther to other “open” public land areas, such as Drop 31.

The off-highway vehicle users themselves would be exposed to PM10 emissions at the Drop 31 site, the relative amount depending on the velocity of the vehicle and prevailing wind speeds. As part of the overall management strategy for the Drop 31 area, mitigation measures will be included to reduce PM10 emissions, such as temporary closure of the Drop 31 area on high wind days (as defined by the South Coast Air Quality Management District), setting speed limits, establishing cattle guards to reduce “track out” onto paved roads, setting a carrying capacity if the place becomes enormously popular, and assuring compliance with the approved PM10 State Implementation Plan.

Alternative C would eliminate 3800 acres of off-highway vehicle “open” areas, up and downwind of sensitive receptors. Any valley-wide reductions in PM10 emissions will depend on the extent to which displaced off-highway vehicle enthusiasts use private land instead of public land, or travel outside the Coachella Valley planning area to recreate.

Motorized Vehicle Route Designations. Under Alternatives A and D, the existing route network on public land (71 miles) would be available for motorized vehicle access, generating PM10 emissions up and down wind of sensitive receptors. Use of this route network is estimated to be five (5) average daily trips (ADT) on weekdays and the summer months, and 25 average daily trips during cooler weekends and hunting season. In addition to the number of average daily trips, the relative amount of PM10 emissions generated by motorized vehicles depends on the velocity of the vehicle and prevailing wind speeds.

Under Alternative B, the route network would be reduced by 20%, by closing redundant routes upwind of sensitive receptors. The relative amount PM10 emissions generated by motorized vehicles on the remaining 45 miles of routes would depend on the average daily trips, the velocity of the vehicles and prevailing wind speeds. Route management would include provisions to comply with the approved PM10 State Implementation Plan, such as signage, establishing cattle guards to reduce “track out” onto paved roads, 15 mile per hour speed limits on unpaved roads with 20 to 150 average daily traffic levels, and temporary closures on high wind days (as defined by the South Coast Air Quality Management District).

Alternative C would reduce the available route network on public lands by 30%, leaving 25 miles of routes. Any valley-wide reductions in PM10 emissions upwind of sensitive receptors, will depend on the extent to which motorized vehicle users use private land instead of public land, or hike to access traditional recreational areas for hunting, rock hounding, camping, bird watching, etc.

Special Recreation Management Area. The proposed amendment to the CDCA Plan would designate Drop 31 and the Mecca Hills and Orocopia Mountains Wilderness Areas as a special recreation management area (SRMA). The proposed management strategy for the SRMA would include mitigation measures to reduce PM10 emissions, such as temporary closure of the Drop 31 area on high wind days (as defined by the South Coast Air Quality Management District), setting speed limits, establishing cattle guards to reduce “track out” onto paved roads, setting a carrying capacity if the place becomes enormously popular, and assuring compliance with the approved PM10 State Implementation Plan.

Stopping, Parking and Vehicle Camping. The proposed amendment to the CDCA Plan would allow these activities within 300 feet of the centerline of approved routes of travel (see Chapter 2), except with such sensitive areas as ACECs and conservation areas where the limit would be within 100 feet of the route centerline. Said activities would be prohibited within wilderness areas. The impacts to air quality would be essentially the same as those identified for motorized vehicle access route (see above).

Peninsular Ranges Bighorn Sheep Recovery Strategy. Minimizing human disturbance in bighorn sheep habitat would have the concurrent benefit of reducing air quality impacts

Hiking, Biking and Equestrian Trails. The proposed amendment to the CDCA Plan involves the coordinated management of non-motorized trails on public lands. The proposed route assignments will be developed in coordination with other agencies and jurisdictions. The proposed amendment is not expected to have any impact on regional air quality.

4.1.11 Noise

Wild and Scenic River Recommendations. The proposed recommendation of certain rivers, or portions thereof, as wild and scenic rivers would have no impact on the noise environment in the planning area.

Visual Resource Management. The assignment of VRM classifications would have no impact on the noise environment, as such classifications are based on analyses of existing land uses and landscape quality.

Land Health Standards and Air Quality. Adoption of the proposed land health standards and air quality management strategy would not impact the surrounding noise environment.

Fire Management Categories. No direct impacts to the noise environment would occur as a result of fire management categorization. These categories would be based on analyses of existing land uses and vegetation types, with a priority placed on protecting life and property.

Habitat Conservation Objectives. The implementation of habitat conservation objectives would help define compatible land uses within conservation areas and may require the implementation of additional project-specific mitigation measures to meet these objectives. While the proposed action would not directly affect the surrounding noise environment, indirect reduced noise impacts would likely be realized. For example, mitigation measures that address the siting, construction and development of improvements (e.g. utility access roads or rights-of-way), would limit vehicular and operational noises to sensitive receptors.

Multiple Use Classification. The proposed multiple use classifications system would affect the noise environment, with ambient noise levels generally correlating to the intensity of permitted land uses. For example, the Class C (Controlled Use) designation, which is the most restrictive and is assigned to wilderness and wilderness study areas, allows only minimal levels of multiple use, and therefore, can be expected to result in the quietest noise environment. The Class I (Intensive Use) designation, which provides for concentrated uses of land and resources, would be applied to existing sand and gravel mining areas, and generally can be expected to result in the loudest noise environment. By designating lands within conservation areas as Class L (Limited Use), the proposed classification system would provide for a noise environment that is compatible with habitat conservation objectives.

Special Area Designations. The designation of special areas, in and of itself, would not impact the noise environment. However, any proposed changes in land use (e.g. motorized vehicle use, livestock grazing, wild horse and burro management), which would be determined based on management prescriptions for a particular special area, would indirectly impact the noise environment. Where more intensive land uses are prohibited, fewer noise impacts would be expected.

Land Tenure Exchange and Sale Criteria. The proposed adoption of land tenure exchange and sale criteria would have no impact on the surrounding noise environment.

Land Tenure Acquisition Criteria. The proposed adoption of land tenure acquisition criteria would have no impact on the noise environment in the planning area.

Management of Acquired Lands. The proposed action would not result in impacts to the noise environment. It was designed to facilitate consistency with the special area designations and surrounding land uses existing at the time.

Communication Sites and Utilities. Lands containing wind park and communication site development are exposed to noises from a wide range of sources, including construction equipment, vehicular traffic on access roads, wind turbine operations, and mechanical equipment. The proposed designation of areas for wind parks and communication site development would help minimize potential noise/land use incompatibilities by confining these noise generators to specific geographic areas, which are best suited for such uses, consistent with habitat conservation objectives. Additional noise attenuation would be achieved by implementing site-specific mitigation measures.

If no areas were designated at this time (Alternatives A and D), land use compatibility issues regarding noise would still need to be taken into consideration as new development projects are proposed; the evaluation would occur on a project-by-project basis. Potential land use conflicts may arise within conservation areas.

Sand and Gravel Mining. Sand and gravel mining operations generate noise from a variety of sources, including excavation equipment, loading and hauling trucks, conveyor systems, routine maintenance activities, and on-site asphalt and concrete plants. The proposed designation of areas for sand and gravel mining operations would help reduce noise/land use incompatibilities between mining operations and sensitive conservation areas. Such an action would confine mining noise to specified areas that are determined to be most suitable for such uses, consistent with habitat conservation objectives. Additional noise attenuation would be achieved by implementing site-specific mitigation measures.

If no areas were designated at this time, sensitive resources would still need to be considered when evaluating the compatibility of land use proposals on BLM-managed lands; however, such evaluation would occur on a project-by-project basis. Potential land use conflicts could arise within conservation areas.

Livestock Grazing. Allocating forage to wildlife within the Whitewater grazing allotment would have only a minimal impact on the surrounding noise environment. Discontinuing livestock grazing and the elimination of motorized vehicle and equipment use by lessees within the allotment would result in minor noise reductions.

Wild Horse and Burro Program. The proposed transfer of the Palm Canyon Herd Management Area to the Agua Caliente Band of Cahuilla Indians, and deletion of the Palm Canyon and Morongo HMAs, would not result in impacts to the noise environment.

Motorized Vehicle Area Designations. Alternatives A and D would result in continuing existing noise levels at Windy Point, Indio Hills, Iron Door and Drop 31. These public lands are remote enough from sensitive receptors to not cause significant noise impacts. Alternative B would confine “open” area motorized vehicle noise levels to Drop 31. Overall noise levels would increase as displaced off-highway vehicle users travel to Drop 31 to play. Noise from motorized vehicles may spill over into the Mecca Hills Wilderness..

Motorized Vehicle Route Designations. Alternatives A and D would result in continued ambient noise levels on the existing route network on public lands. These public lands are remote enough from sensitive receptors to not cause significant noise impacts. Alternative B would reduce the available route network to 45 miles and Alternative C would reduce the route network to 25 miles, locally reducing noise levels, assuming displaced motorized vehicle users do not move onto adjacent private lands.

Special Recreation Management Area. The proposed designation of the Mecca-Orocopia SRMA would help to reduce the noise environment in this area. The designation would result in the development of a management strategy that would include prescriptions to minimize motorized and mechanical equipment intrusions into the Mecca Hills and Orocopia Mountains Wilderness Areas, while simultaneously providing for semi-primitive motorized recreational opportunities on public lands surrounding the two wilderness areas. Such a management program would help reduce noise/land use conflicts between wilderness and motorized recreation activities.

Stopping, Parking and Vehicle Camping. Limiting stopping, parking, and vehicle camping to within 100 feet of the roadway centerline within conservation areas would confine vehicular and other visitor-generated noises to the immediate vicinity of the roadway, thereby minimizing noise/land use conflicts in these sensitive areas.

Under the No Action Alternative, stopping, parking, and vehicle camping would be allowed within 300 feet of the roadway centerline in conservation areas, thereby allowing vehicular and visitor-generated noises to extend further into sensitive areas.

Peninsular Ranges Bighorn Sheep Recovery Strategy. Minimizing human disturbance in bighorn sheep habitat would have the concurrent benefit of reducing noise impacts

Hiking, Biking and Equestrian Trails. Proposed limitations on trails use within Peninsular bighorn sheep habitat would help minimize noise levels generated by hikers, bicyclists, and equestrians, which, among other human disturbances, are known to disrupt sheep behavior. The extent of these limitations would be determined through a multi-jurisdictional adaptive trails management and monitoring program.

4.1.12 Hazardous Materials and Toxic Wastes

All activities on the BLM managed public lands must adhere to Federal laws addressing hazardous materials and toxic wastes, such as the Resources Conservation and recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Safe Drinking Water Act (SDWA), the Federal Clean Air Act and the Toxic Substances Control Act. Although illegal, dumping of hazardous materials on the public lands does occur. The BLM works with the appropriate State and local government agency to appropriately remove these materials off the public lands. Increased patrols and other conservation measures throughout the CVMSHCP conservation system will help to curtail illegal dumping on the public lands.

4.1.13 Visual and Scenic Resources

Visual Resource Management (VRM) classifications assigned through this CDCA Plan amendment are based on existing land uses, and existing and proposed land use designations (e.g., wilderness, ACECs, conservation areas, and the Santa Rosa and San Jacinto Mountains National Monument). Within the 91,327 acres of BLM-managed lands designated as VRM Class 1 (San Geronio and Santa Rosa Mountains Wilderness Additions), very limited management activities would be allowed. Substantial protection of visual resources is also afforded to 94,637 acres of BLM-managed lands designated as VRM Class 2 (ACECs, Santa Rosa and San Jacinto Mountains National Monument, and CVMSHCP conservation areas, except for lands upon which wind energy facilities are located and/or sand and gravel mining occurs). Activities in these VRM Class 2 areas must remain subordinate to the existing landscape, thereby limiting the degree of landscape modification allowed. The greatest flexibility for landscape modifications would be found on the 13,727 acres of BLM-managed lands designated as VRM Class 4 where management activities may be a dominant element of the landscape. These lands include wind energy and sand/gravel mining sites, as well as all remaining public lands within the planning area boundary, except the NECO overlap area.

Conformance with VRM objectives would be determined through the Contrast Rating process as project proposals are submitted to the BLM. Contrast ratings measure the degree on contrast between a proposed activity and the existing landscape, and determine whether the proposed project meets applicable VRM objectives. If the proposed project exceeds the allowable contrast, BLM makes a decision to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts.

Within the NECO overlap area that encompasses 128,350 acres of BLM-managed lands, VRM classes would not be assigned. Instead, interim VRM objectives would be established for applicable lands on a case-by-case basis when project proposals are submitted to the BLM.

Preferred Alternative (A, B and C). Within the 91,327 acres of BLM-managed lands designated as VRM Class 1, very limited management activities would be allowed. Substantial protection of visual resources is also afforded to 94,637 acres of BLM-managed lands designated as VRM Class 2—activities on these lands must remain subordinate to the existing landscape, thereby limiting the degree of landscape modification allowed. The greatest flexibility for landscape modifications would be found on the 13,727 acres of BLM-managed lands designated as VRM Class 4 where management activities may be a dominant element of the landscape. Within the NECO overlap area that encompasses 128,350 acres of BLM-managed lands, VRM classes would not be assigned. Conformance with proposed visual resource management objectives would be determined as project proposals are submitted to the BLM. Contrast Ratings that measure the degree of contrast between a proposed activity and the existing landscape would be prepared in the classified areas. Decisions to redesign, abandon or reject, or proceed would be based on the Contrast Rating.

No Action Alternative. VRM classes would not be assigned at this time (though designated wilderness areas are managed in accordance with VRM Class 1 objectives by policy). Instead, interim VRM objectives would be established for affected lands on a case-by-case basis when project proposals are submitted to the BLM—VRM objectives would not be known prior to the time actions are proposed. Contrast Ratings that measure the degree of contrast between a proposed activity and the existing landscape would be prepared relative to the interim objectives. Decisions to redesign, abandon or reject, or proceed would be based on the Contrast Rating.

4.1.14 Utilities, Public Services and Facilities

Wild and Scenic River Recommendations. The proposed recommendation of eligible rivers, in and of itself, would have no effect on transportation facilities or regional circulation systems on BLM-managed public lands in the planning area. If the rivers, or portions thereof, were later studied and found to be suitable for designation, existing roads, access ramps, bridges, culverts and other facilities would be unaffected. However, per Section 7 of the Wild and Scenic Rivers Act, the Federal Energy Regulatory Commission (FERC) would be expressly prohibited from licensing the construction of new dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works under the Federal Power Act on or directly affecting any river which is designated as a component of the national wild and scenic river system. Furthermore, no federal agency or department would be permitted to assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such a designation was established. In this regard, the development of new utilities along these rivers would be restricted.

Visual Resource Management. The designation of VRM classifications, in and of itself, would have no impact on utilities and public services on BLM-managed public lands as the classifications would be based on analyses of existing land uses and landscape quality. However, should a utility development project be proposed in the future, the degree of contrast between the existing landscape and the proposed project (Contrast Rating) would be compared with the VRM classification to determine whether the anticipated level of contrast is acceptable. If the allowable contrast level is exceeded, the project would need to be redesigned or abandoned, or mitigation measures would need to be implemented to reduce critical impacts to acceptable levels. This process has the potential to limit the extent and increase the costs of future utility development on BLM-managed public lands in the planning area.

To minimize potential adverse effects of the VRM classification system on utilities, the Preferred Alternative would designate all BLM-managed public lands associated with existing and future development of wind energy facilities and sand/gravel mining sites as VRM Class 4, whether inside or outside the CVMSHCP conservation areas. VRM Class 4 is one of the least restrictive classifications, which allows any contrast to attract attention and be a dominant feature of the landscape in terms of scale, but requires it to repeat the form, line, color, and texture of the characteristic landscape. Mitigation measures and project redesign may be required to assure that future utility development meets this standard. Such action may result in increased costs to utility project developers.

Land Health Standards and Air Quality Management Strategy. The proposed land health standards and air quality management strategy are directed at promoting healthy landscapes and achievement of Federal and State air quality standards. To achieve these standards, utility projects would likely need to implement site-specific mitigation measures, such as improvements to soil, drainage, and vegetation, implementation of Best Management Practices to minimize impacts to air and water quality, and special construction, design, or operational techniques. Such measures can be expected to result in increased costs to utility project

developers. However, land health standards may not be used to permanently prohibit allowable uses established by law, regulation, or land use plans.

Fire Management Categories. No impacts to utilities would occur as the fire management categories are based on analyses of existing land uses and vegetation types, with priority placed on protecting life and property. With regard to public services, the proposed fire management categories would clarify BLM's fire management and response strategy for various habitat types on BLM-managed lands in the planning area.

Habitat Conservation Objectives. Implementation of the proposed habitat conservation objectives would define compatible uses within conservation areas, and may require site-specific mitigation measures to be implemented where utility development occurs within conservation areas. This will likely increase costs to the utility developer; costs would depend upon the location of the utility improvements relative to sensitive species, habitat conservation areas, and ecological processes, such as sand transport corridors.

If the proposed habitat conservation objectives were not adopted, or for land outside conservation areas, utility projects would still have to mitigate for impacts to listed species, cultural and other sensitive resources. Mitigation measures would be determined on a project-by-project basis. However, additional mitigation measures related to landscape level habitat management would not likely be imposed.

Multiple Use Classification. No impacts to utility development would occur. Utility development would still be allowed in multiple use classes "L," "M," and "I," but would continue to be prohibited in multiple use class "C," which applies only to wilderness areas.

Special Area Designations. Designation of areas as ACECs or wildlife habitat management areas would not directly impact utilities and public services on BLM-managed public lands in the CDCA planning area. The designation of such areas would not result in automatic closures of utility sites or operations. Any potential closures would be proposed through a separate action, based on protection of sensitive cultural or natural resources. Efforts would be made to accomplish such protection without unnecessarily or unreasonably restricting public lands from uses that are compatible with that protection.

Land Tenure Exchange and Sale Criteria. Implementation of the proposed land tenure exchange and sale criteria would not impact utilities or public services. The BLM would still have the option to retain utility development sites in public ownership. BLM may consider exchanges or sales of land, including land with utilities, if all the criteria described in Chapter 2.1.4.6 are met.

Land Tenure Acquisition Criteria. Implementation of the land tenure acquisition criteria would not impact utilities or public services. Any proposed acquisitions would have to meet the criteria set forth in Chapter 2.1.4.7.

Management of Acquired Lands. The proposed action would not impact existing utilities or public facilities on BLM-managed public lands in the planning area. However, should the BLM acquire new lands that already contain utilities or public facilities, the proposed action would require that they be managed in accordance with management practices on surrounding lands. Where surrounding lands are managed for the protection of sensitive cultural or natural resources (such as in an ACEC), this could result in the need for additional mitigation measures and associated costs to utility operators.

If no guidance for managing acquired lands were provided at this time, a separate plan amendment process would be required to define appropriate land uses on the newly acquired lands.

Communication Sites and Utilities. The proposed action would minimize land use conflicts (such as noise, traffic, construction and operational activity) between sensitive natural resource areas and more intensive windparks and communication sites. However, it would also limit windpark and communication development locations and opportunities on BLM-managed public lands in the planning area.

While opportunities for new wind parks and communication sites would be limited to designated areas, the best lands for these uses are included in the proposed designations. Designating areas for communication sites and wind parks would help to minimize potential land use conflicts.

If no areas were designated at this time (Alternative D), sensitive resources would still need to be taken into consideration when evaluating the compatibility of land use proposals on the BLM-managed lands; however, this evaluation would occur on a project-by-project basis. Potential land use conflicts may arise within conservation areas. Although impacts to sensitive resources would likely be mitigated, any off-site mitigation would indicate incompatible land uses within conservation areas.

Sand and Gravel Mining. The proposed action would not impact utilities or public services.

Livestock Grazing. Discontinuing livestock grazing on all or a portion of the Whitewater Canyon grazing allotment would not affect utilities or public services.

Wild Horse and Burro Program. The proposed transfer of BLM parcels within the Palm Canyon Herd Management Area (HMA) to the Agua Caliente Tribe of Cahuilla Indians, and the proposed deletion of the Palm Canyon and Morongo HMAs would not impact utilities or public facilities. Amendment of the existing MOU would require BLM to provide management assistance for horses on tribal lands.

Motorized Vehicle Area Designations. The proposed action would not impact utilities nor public services.

Motorized Vehicle Route Designations. Given that the designation of motor vehicle routes would be based on analyses of existing land uses, no impacts to existing utilities or public facilities would occur. Where access to future utility sites is necessary, it would be provided under a rights-of-way, with terms and conditions to facilitate conformance with the land health standards, habitat conservation objectives, air quality management strategy, and criteria described in Chapter 2.1.4.14.

Special Recreation Management Area. Designation of the Mecca-Orocopia SRMA would not impact utilities, public facilities, or public services.

Stopping, Parking and Vehicle Camping. The proposed action would not impact utilities or public facilities or services.

Peninsular Ranges Bighorn Sheep Management Strategy. No impact on utilities, public facilities or services.

Hiking, Biking and Equestrian Trails. No impacts to utilities or public facilities would result from the proposed action.

4.1.15 Socio-Economic Considerations

Wild and Scenic River Recommendations. The proposed amendment to the CDCA Plan and associated eligibility recommendations for wild and scenic rivers will apply only to BLM-managed lands already under conservation management. If these rivers are later studied for suitability status the potential socio-economic impacts of their designation as wild and scenic would then be assessed. At this time, potentially positive effects would be the provision of additional management mechanisms to maintain free-flowing conditions, protection against potentially degrading effects of OHV use, protection of water quality and indirect protection of associated ground water. Protection would also enhance opportunities for passive enjoyment of associated wetlands and riparian habitat and wildlife, and associated opportunities for ecotourism. Potentially adverse impacts appear to be limited to restrictions on OHV access and associated support businesses.

Visual Resource Management. The high value of the visual resources in the planning area constitute a significant economic resource that has helped to induce and supports and a thriving tourism and second home economy, as well as being an important contributor to the overall quality of life in the planning area. Therefore, the resource assessment and protection afforded by the proposed Plan amendment will serve to strengthen and secure this important economic asset for the long-term.

Conversely, proposed uses within BLM-managed lands within the CDCA planning area will be assessed for their potential to adversely impact the area's important visual resources. Proposed uses may be required to implement project design or mitigation measures which reduce impacts to visual and scenic resources to insignificant levels, which may result in additional costs to such land uses. While design solutions to impacts may be cost-effective, it is still likely that some economic effect, i.e. additional land use costs would be associated with mitigation.

Land Health Standards and Air Quality Management Strategy. The adoption of land health standards and the air quality management strategy proposed in the CDCA Plan amendment would apply to all BLM lands and programs, and would provide important baseline protections for land health areas of concern, including soils, native species, riparian/ wetlands/ stream functions, water quality and air quality. There are clear, although unquantified, positive relationships between the protection of land health, including water and air quality, and the economic health of a region. Land health standards and implementation of an air quality management strategy are recognized in the CDCA planning area as essential to the overall economic health of the resort, vacation and retirement economy of the region. Protection of land health through the implementation of the proposed Plan amendments will have positive long-term economic impacts.

The application of the proposed land health standards and air quality management strategy would affect the economic costs and performance of certain land uses. Depending upon the type of use proposed, terms and conditions and mitigation measures associated with the issuance of permits, rights-of-way, leases and other use authorizations would result in varying

additional costs to implement the proposed use. Mitigation cost controls can be achieved through thoughtful project design, phased mitigation implementation and by other means.

Absent a Bureau-initiated air quality management strategy, projects on BLM-lands would still be required to comply with National Ambient Air Quality Standard for PM₁₀; however, a greater economic burden would be placed on private interests to attain the PM₁₀ standard valley wide.

Fire Management Categories. The application of the fire management categories proposed in the CDCA Plan amendment is designed to be responsive to ecological, social and legal issues associated with fire suppression and management. To the extent that these management categories attempt to balance the various issues, including direct and indirect economic costs associated with fire management, the proposed amendment will have neutral to positive economic effects. Ecological considerations dictate the implementation of suppression strategies in desert floor and wash and uplands habitats where fire does not play a meaningful natural role in succession and regeneration. However, these areas seldom burn to low fuel densities and their priority for fire suppression should not result in significant adverse economic impacts.

Fire management, including the use of prescribed burns, will play an important role in protecting the health of montane and chaparral habitats. To the extent fire management is tied to the goals and objectives of the Coachella Valley Multiple Species Habitat Conservation Plan, fire management will also enhance land health status, protect visual and scenic resources, and contribute positively to the overall economic health of the region.

Habitat Conservation Objectives. The proposed CDCA Plan amendments address the habitat conservation objectives for six general habitat types with varying needs and opportunities for compatible use. The proposed Plan amendment does not adversely affect existing energy and mineral development uses, would have a limited adverse impact on routes of travel and associated economic activity, and would have a substantial effect in limiting future land uses. The amendment would allow the retrofitting of existing windparks to increase the cost-effective generation of power on reduced disturbed areas. Development of new windparks is not precluded under the proposed amendment but would restrict the extent of site disturbance that would be permitted.

Supplies of sand and gravel in the planning area are expected to remain adequate for a period of 40 years or more (Granite Construction EIR, 2002) and extensive areas of viable sand and gravel resources not yet developed are effected by neither the CDCA Plan amendment of the Coachella Valley Multiple Species Habitat Conservation plan.

Multiple Use Classification. The proposed CDCA Plan amendment would result in the designation of all planning area lands within conservation areas and outside wilderness as Class "L" (Limited Use). Lands outside conservation areas would be classified "M" (Moderate Use). Class "I" (Intensive Use) would be assigned to designated OHV open space areas (Drop 31) and existing sand and gravel mining areas. The potential economic effect of this action would

be multifold. First, it would limit mineral extraction to existing mining areas, which are proposed to include active mineral extraction sites, as well as sites designated by the California Division of Mines and Geology as quantified, cost-effectively extractable mineral resource zones (MRZs). The proposed action would not affect private lands outside the conservation areas established by the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) with extractable resources. Economic effects would be neutral in the near to mid-term, but could be adverse in the long-term as readily available resources are exhausted. The long-term impact horizon is probably 50 years or more (Granite Indio Quarry SEIR, 2002).

Wind energy development would be limited to existing permitted rights-of-way. However, current technology being applied to existing wind resource areas constitutes approximately $215 \pm$ megawatts (Mwe) of installed capacity, with approximately 30 percent of existing wind turbines are small (65 kilowatt (Kwe)). The potential for the smaller and mid-range size turbines to be replaced by larger turbines (up to 1.5 Mwe) represents an opportunity for continued growth in windpark energy extraction on currently developed lands. Approximately 285 acres of available windpark land has not yet been developed. To the extent that harvestable wind resources are geographically limited and already well developed, the proposed action would appear to have less than significant impacts on the economics of wind energy development on BLM lands.

OHV use has already been somewhat curtailed in the planning area as a result of closures required to protect threatened and endangered species. The proposed action would provide new dedicated OHV activity areas and would provide continuing opportunities for associated economic activities to continue. While it is unclear whether or to what degree the proposed action would impact direct and indirect economic activity associated with OHV use, this impact is expected to be less than significant.

Based upon the currently conceived but as yet not adopted provisions of the Coachella Valley MSHCP, controlled access to conservation areas for purposes of private and commercial ecotourism uses is possible. A significant potential exist for substantial positive economic long-term benefit from expanded but managed ecotourism/nature tourism on lands designated "L".

Special Area Designations. The proposed amendment to the CDCA Plan would involve the expansion of one existing ACEC (Dos Palmas) and the creation of one new ACEC in the Mission Creek area. Both actions would not preclude the development of managed access programs consistent with the current version of the Coachella Valley MSHCP. The proposed action could further the long-term protection of valuable and finite natural resource areas with high biological, visual/scenic and other values marketable to the growing eco/nature tourism industry. Controlled access would be needed to protect the value of these resources. The balance of planning area lands outside designated Wilderness Areas and the Santa Rosa/San Jacinto Mountains National Monument would be designated as the Coachella Valley Wildlife Habitat Management Area (WHMA). As with other lands within the MSHCP, controlled access could be made available with positive long-term economic effects.

Land Tenure Exchange and Sale Criteria. No impacts to existing designations or land uses would occur as a result of adopting land exchange and sale criteria (Alternatives B-C). The criteria were designed to ensure any exchanges or sales were compatible with designated conservation areas.

Future land uses would be impacted as a result of adopting land exchange and sale criteria (Alternatives B-C). The land exchange criteria would severely limit exchange opportunities in the 252,548 public land acres within the reserve system, wilderness or existing ACECs, allowing consideration of only those proposals where the land use proposed by an exchange proponent could be demonstrated to be 1) advantageous to conservation goals and 2) economically viable based on allowable land uses and appraised values.

The 77,968 acres of public lands outside the conservation reserves, wilderness or ACECs would be more available for exchange. However, exchange proposals would be required to ensure public needs for community resources (e.g. recreation access, sand and gravel supplies, communications facilities) could continue to be met.

The overall result would be to limit 1) conversion of current public lands to land uses other than conservation, 2) use of land exchange as a mechanism to assemble conservation reserves, and 3) the ability to reduce public costs of assembling reserve areas through use of land exchange where opportunities might be presented.

If these criteria were not adopted (Alternatives A-D), land exchanges and sales would be assessed on a case-by-case basis, taking into consideration sensitive resources, but not required to benefit the CVMSHCP conservation system.

Land Tenure Acquisition Criteria. The proposed amendment to the CDCA Plan would result in the BLM efforts and costs to acquire additional lands important to the creation of viable contiguous holdings of conservation lands, which would further the goals of the Coachella Valley MSHCP. BLM lands identified as appropriate for exchange or sale could be used to balance or more than offset the costs of acquiring conservation lands. The proposed Plan amendment establishes criteria by which the acquisition of conservation lands would be considered appropriate. These include acquisition from willing sellers, direct benefits to the MSHCP and indirect benefits through the diversion of potentially adverse land uses away from conservation lands, enhanced biotic and abiotic components of conservation areas, and coordination with local jurisdictions. Acquisition determinations would be made on a case-by-case basis. Based upon the current type and extent of proposed conservation lands as set forth in the Draft MSHCP, substantial opportunities could remain available for BLM to acquire important conservation lands and cover costs from appropriate land exchanges or sales, which would also benefit overall conservation efforts.

Management of Acquired Lands. The proposed amendment (Alternatives A, B and C) would reduce, if not eliminate planning and administrative costs associated with developing separate land management plans for newly acquired lands. Where newly acquired land becomes part of an ACEC or similarly designated area, public access and development opportunities would be

restricted to those permitted within the ACEC and other conservation areas, as set forth in the applicable management plan. The proposed action could further the long-term protection of valuable and finite natural resource areas with high biological, visual/scenic and other values marketable to the growing eco/nature tourism industry, thereby resulting in positive long-term economic effects.

If no guidance for managing acquired lands was provided at this time (Alternative D), a separate plan amendment process would be required to define appropriate land uses on the newly acquired lands. The primary impact of this action would be to reduce future public planning costs, although it would limit opportunity to manage a parcel differently without a plan amendment.

Communication Sites and Utilities. The proposed CDCA Plan amendment would restrict windpark and communication site development to designated areas, to be managed in accordance with habitat conservation objectives and land health standards. The proposed action would not significantly affect the economics of wind energy development on BLM lands. The best available lands for harvesting wind in the Coachella Valley are already under production and are included in the proposed areas for designation. Wind energy resource areas are geographically limited and many are already developed, leaving few viable opportunities for future windpark development, regardless of the proposed action. Also, current wind energy technologies have increased the efficiency of wind turbines so that fewer turbines (and less acreage) are needed to achieve high energy output. The economic effects of the proposed amendment on communication site development would be neutral in the near to mid-term. In the long term, satellite technologies will become more the norm, reducing the need for additional communications sites. By restricting high-profile windpark and communication site development to designated areas, the proposed action could further the long-term protection of natural resource areas with high biological, visual/scenic, and other values marketable to the growing eco-tourism industry.

Sand and Gravel Mining. The proposed CDCA Plan amendment would restrict mineral extraction within Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) conservation areas to those resource areas designated by the California Division of Mines and Geology, and would require the implementation of appropriate mitigation measures in conformance with habitat conservation objectives. It would not affect private lands with extractable minerals outside the conservation areas established by the MSHCP. While opportunities for new sand and gravel sites would be limited to designated areas, the best lands for these uses are included in the proposed designations. Designating areas for sand and gravel mining would help to minimize potential land use conflicts.

Economic effects would be neutral over the near to mid-term. Supplies of sand and gravel in the planning area are expected to remain adequate for a period of 40 years or more (Granite Construction EIR, 2002). However, as sand and gravel resources are exhausted over the long-term and fewer mining opportunities are available, the economic effects of the proposed action could be adverse. The application of site-specific mitigation measures would result in varying additional costs to the permittee or lessee, but these costs can be controlled through

thoughtful project design and phased mitigation implementation. Nonetheless, the restriction of sand and gravel mining operations within MSHCP conservation areas would protect the biological, ecological, visual and other values of these sensitive areas, thereby contributing positively to their overall economic health.

Livestock Grazing. The proposed CDCA Plan amendment would not result in any changes to existing livestock grazing opportunities in the planning area, and therefore, would not have any economic implications.

Wild Horse and Burro Program. The proposed CDCA Plan amendment would involve the transfer of BLM parcels within the Palm Canyon Herd Management Area (HMA) to the Agua Caliente Band of Cahuilla Indians (ACBCI) via land exchange, and amendment of the existing MOU for BLM to provide management assistance for horses on tribal lands. Although the BLM would lose the existing value of Palm Canyon HMA lands, the proposed land exchange would provide BLM with an opportunity to acquire important conservation lands or other lands suitable for multiple use purposes. Depending on the location and suitability of these newly acquired lands, economic benefits could be realized from development leases, right-of-way permits, or similar land use mechanisms.

Proposed deletion of the Palm Canyon and Morongo HMAs would eliminate BLM's herd management costs for these areas, including provisions for feed, cover, and water requirements, herd surveillance and monitoring, and the removal of animals from designated areas. However, BLM would incur costs associated with management of newly acquired lands, as well as limited costs for providing management assistance for horses on tribal lands.

The ACBCI would gain additional acreage in the Santa Rosa and San Jacinto Mountains National Monument and would incur additional costs associated with management of these lands. The tribe would lose acreage elsewhere as a result of the land exchange, as well as any potential economic benefits associated with them, such as future development-related income. The BLM and ACBCI would work closely with one another to facilitate a land exchange that is mutually agreeable.

Motorized Vehicle Area Designations. The designation of public lands as either open, limited, or closed to off-road vehicles in the proposed CDCA Plan amendment would be based on the protection of public land resources, the minimization of land use conflicts, and the minimization of damage to natural resources and wildlife habitats. Economic effects would be indirect, yet positive. "Open" and "limited" motor vehicle areas would provide casual OHV users with access to dedicated OHV activity areas and authorized users with access to rights-of-way or developed utility sites. This type of access would facilitate and indirectly promote the use of public lands for multiple use purposes, such as utility development or mining, as well as recreation and ecotourism. Surrounding land uses would be considered in the designation process to assure that potential land use conflicts, such as increased noise and fugitive dust from OHV use, would not adversely impact the value of adjacent lands. "Closed" areas would control public access in designated wilderness or primitive areas, thereby helping

to preserve the important ecological, biological, visual/scenic and other values of these sensitive areas, and contributing positively to the overall economic health of the region.

Motorized Vehicle Route Designations. Like the motor vehicle area designations described above, the designation of open, limited, or closed motor vehicle routes would have indirect, but positive economic effects. “Open” and “limited” routes would provide both casual and authorized users with direct access to BLM-managed lands, thereby facilitating and promoting the use of public lands for multiple use purposes, including recreation and ecotourism. Land use compatibility issues would be evaluated in the route designation process to assure that land use conflicts, such as increased fugitive dust and noise from motor vehicles, are minimized and do not threaten the economic or other values of surrounding lands. “Closed” routes would be designated where the biological, ecological, scenic or other values of the land require a high level of protection. The protection afforded by “closed” routes would strengthen and secure these important economic assets for the long-term.

Special Recreation Management Area. The proposed CDCA Plan amendment would result in the designation of the Mecca-Orocopia SRMA and implement provisions to protect wilderness values of the area, while simultaneously providing semi-primitive motorized recreational opportunities on public lands surrounding the area. The proposed action would result in finite investment by BLM for the development of a detailed recreation plan, which establishes site-specific management directives and prescriptions for the SRMA. Greater, on-going managerial investment by BLM would also be required for supervision and enforcement of recreational restrictions, possible planning and construction of on-site management facilities, and related items. Designation of the SRMA would not preclude public use of the SRMA, but such uses would be restricted to those that are compatible with established management prescriptions.

Stopping, Parking and Vehicle Camping. The proposed amendment to the CDCA Plan would restrict stopping, parking, and vehicle camping to within 100 feet of an approved route within sensitive areas, such as ACECs and conservation areas. In other areas, such activity would be permitted within 300 feet of an approved route. The economic effects of the proposed action would be indirect, yet positive. The proposed action would enhance the long-term protection of valuable and finite natural resource areas with high biological, ecological, scenic and other values. In this regard, it would contribute to the overall economic health of these sensitive areas and the region’s growing eco-tourism/ nature tourism industry.

Peninsular Ranges Bighorn Sheep Management Strategy. Any limitations on recreational trail use of the public lands will have an impact on the generally unlimited casual use that residents and visitors to the Coachella Valley have historically enjoyed (Alternatives A, B and C). The extent of these limitations would be addressed through activity level, in coordination with interested members of the public, local jurisdictions, U.S. Fish and Wildlife Service, and California Department of Fish and Game.

Hiking, Biking and Equestrian Trails. The proposed interagency trails management plan for the Santa Rosa and San Jacinto Mountains is intended to provide reasonable recreational trail use, while also facilitating recovery of the Peninsular Ranges bighorn sheep. The plan would restrict, to some extent, primitive recreational trail use in this portion of the valley by limiting trails use to specific routes, seasons, times of day, and modes of travel. However, the economic implications of such restrictions are expected to be less than significant, given the multitude of other trails and recreational opportunities available in the Coachella Valley. The plan would enhance the long-term recovery of the bighorn sheep, which is an important component of the regional ecosystem, which is in turn an integral part of the overall regional economy.

4.1.16 Environmental Justice and Health Risks to Children

Wild and Scenic River Recommendations. The proposed recommendations will have no adverse impacts on minority populations or children. Should a river, or portion thereof, later be determined to be eligible for inclusion in the National Wild and Scenic River System, the designation will preserve the river's outstanding recreational, geologic, and other values for the enjoyment of all present and future populations, without regard to income, race, nationality, age or other characteristics.

Visual Resource Management. No impacts to special populations would occur as a result of the proposed action. All proposed projects on federal lands would be subject to the consequences of the VRM classification system, including potential project redesign or the implementation of mitigation measures, regardless of the social, racial or other characteristics of the project proponent.

Land Health Standards. The proposed land health standards would apply to all BLM-managed lands and programs and would be implemented through the terms and conditions of permits, leases, and other authorizations, regardless of social, racial, economic or other characteristics of the project proponent. The proposed standards are intended to reduce the impacts of development on air quality, water quality, soils, vegetation and biological species, which would indirectly benefit all human populations.

Air Quality Management Strategy. The proposed air quality management strategy would help to reduce PM10 emissions off of the public lands, and in conjunction with PM10 reducing actions on other lands, would help the Coachella Valley attain the National Ambient Air Quality Standard for PM10. Reductions in PM10 emissions would help to improve health prospects for children and the elderly, who are particularly susceptible to poor air quality.

Absent a Bureau-initiated air quality management strategy, projects on BLM-lands would still be required to comply with National Ambient Air Quality Standard for PM10; however, a greater economic burden would be placed on private interests to attain the PM10 standard valley wide.

Multiple Use Classification. Implementation of the proposed multiple use classification system would not adversely or disproportionately impact minority or special populations. MUC categories would be assigned based on ecological characteristics of BLM-managed lands. MUC assignments are intended to preserve the values of these lands for all populations, while still providing for concentrated human uses, where possible.

Habitat Conservation Objectives. The proposed habitat conservation objectives would be based on biological habitat type, not the characteristics of the human population. All proposed development, regardless of the ethnic or other characteristics of the project proponent, would be assessed for compatibility with the conservation system and may be required to implement appropriate mitigation measures on BLM-managed lands.

Fire Management Categories. No impacts to minorities, children, or special populations would occur as a result of the proposed action. The proposed fire management categories would be determined based on biological habitat type, not the characteristics of a particular segment of the population.

Special Area Designations. The designation of special areas, such as ACECs and wildlife habitat management areas, would provide special management attention for the protection of important ecological, cultural or other natural resources. Where cultural resources are being protected, such a designation may indirectly benefit certain ethnic groups, such as Native American populations, by protecting elements of their heritage. Otherwise, such designations would not adversely or disproportionately impact minority or special populations.

Land Tenure Exchange and Sale Criteria. The proposed criteria were designed to ensure that future land exchanges and sales are compatible with designated conservation areas. Adoption of these criteria would not adversely impact any minority group or special population. In fact, it would indirectly benefit Native American groups by assuring that BLM-managed public lands containing historic Native American values are not disposed from public ownership, except for stewardship transfer to the appropriate tribes. Should the criteria be adopted, all land exchange, sale, and acquisition proposals would still be subject to NEPA environmental review, public review and input, and land appraisals to assure the proposed exchange is in the public interest.

Land Tenure Acquisition Criteria. Adoption of the land acquisition criteria would not adversely or disproportionately affect any segment of the human population. Such an action would assure that land is acquired from willing sellers only and that acquisitions are conducted in coordination with local jurisdictions.

Management of Acquired Lands. The proposed action would facilitate consistency between special areas designations, such as ACECs, and newly acquired lands located within their boundaries. It would not adversely or disproportionately impact any segment of the human population.

Communication Sites and Utilities. The proposed action would limit windpark and communication site development to designated areas. Areas would be selected for their consistency with habitat conservation objectives, not the presence or absence of a particular segment of the human population. All development proposals would be required to occur within designated areas, regardless of racial, ethnic, or other characteristics of the project proponent. Future development projects would be required to meet land health standards and implement necessary mitigation measures, which would minimize impacts to all segments of the population.

Sand and Gravel Mining. No impacts to minorities or special populations would occur as a result of designating areas for sand and gravel mining. Areas where mining is permitted would be selected for the presence of mineral resources and their compatibility with habitat

conservation objectives, not the presence or absence of a particular segment of the population.

However, the development of future mining projects within these areas could concentrate fugitive dust and other pollutant emissions on these and surrounding lands, thereby increasing potential health problems to children and others. All projects would be required to meet BLM land health standards and state and federal ambient air quality standards, and may be required to implement additional site-specific mitigation measures to minimize these impacts to acceptable levels.

Livestock Grazing. Discontinuing livestock grazing use of all or a portion of the Whitewater Canyon grazing allotment would not adversely or disproportionately impact any special segment of the human population, other than the permittee. Such an action would affect all BLM land lessees or permittees in the same manner, regardless of their ethnic, economic, or other affiliations.

Wild Horse and Burro Program. The proposed transfer of BLM parcels within the Palm Canyon HMA to the Agua Caliente Band of Cahuilla Indians (ACBCI) would benefit the tribe by providing it with additional acreage within the Santa Rosa and San Jacinto Mountains National Monument. Such a transfer would occur in close coordination and consultation with the tribe to assure that the action is mutually agreeable. Amendment of the existing MOU would also benefit the ACBCI by providing it with management assistance from BLM for horses on tribal lands. The proposed deletion of the Palm Canyon and Morongo HMAs would not adversely affect any segment of the human population.

Motorized Vehicle Area Designations. The designation of motor vehicle access areas, in and of itself, would not adversely or disproportionately affect any segment of the population. However, concentrated motor vehicle use within designated areas could result in the generation of fugitive dust and other pollutant emissions that could affect children and other sensitive populations. Regardless, the number of motor vehicle users and the frequency of use within these areas are not expected to be sufficient enough to constitute a significant health threat. As required by 43 CFR §8342.1, BLM must assure that area designations are based on the promotion of public safety and the minimization of land use conflicts within and surrounding designated areas, including populated areas. Furthermore, the criteria described in Chapter 2.1.4.13 specifically require that motor vehicle areas be located to minimize damage to air and other resources of the public lands.

Motorized Vehicle Route Designations. The proposed designation of motor vehicle routes would not adversely or disproportionately affect any minorities or other special populations. Although vehicle use on such routes would result in the generation of fugitive dust and other air pollutants, the number of vehicles utilizing designated routes is not expected to be sufficient enough to constitute a public health hazard. Furthermore, in accordance with 43 CFR §8342.1, BLM must assure that all route designations are based on the promotion of public safety and the minimization of land use conflicts, and all routes must be located to minimize damage to air and other natural resources of the public lands.

Special Recreation Management Area. No impacts to minorities, children, or other special populations would occur as a result of designating the Mecca-Orocopia SRMA. The SRMA would be designated for the purpose of protecting wilderness values in this area, and any management prescriptions would apply equally to all segments of the population.

Stopping, Parking and Vehicle Camping. The proposed action is intended to restrict stopping, parking, and vehicle camping in ACECs and conservation areas to the immediate vicinity of approved routes of travel. All restrictions would apply equally to all segments of the population, regardless of racial, economic, or other characterizations.

Peninsular Ranges Bighorn Sheep Management Strategy. The proposed action is intended to facilitate recovery of the bighorn sheep. Any resultant restrictions would apply equally to all segments of the population, regardless of racial, economic, or other characterizations.

Hiking, Biking and Equestrian Trails. Limitations on trail use within Peninsular bighorn sheep habitat would not adversely or disproportionately impact minorities or special populations. All restrictions would be applied equally to all trail users, regardless of racial or other characterizations, in an effort to limit impacts to sensitive biological species. Trails management would be coordinated with local jurisdictions and other public agencies to assure that all public interests are represented.

4.1.17 Cumulative Impacts

Cumulative effects are those effects in a particular area which result from the incremental effects of a proposal added to other past, present, and reasonably foreseeable future actions regardless of which agency or person undertakes them (40 CFR 1508.7). The analysis and disclosure of cumulative effects are important because they alert decision makers and the public to the context within which effects are occurring, and to the environmental implications of the interaction of proposed actions with other known and likely actions within the planning area and the region. The scope of this cumulative impact analysis addresses the entire *California Desert Conservation Area Plan* (1980, as amended), encompassing portions of Inyo, San Bernardino, Riverside and Imperial Counties.

4.1.17.1 Activities Prior to 1970

For many decades the California Desert served as a place to pass through, via highways, railroad, and utilities to and from the coastal urban cities, and episodes of mining and grazing occurred in several localities, often at intense use scales. Scattered towns, facilities, and access infrastructure were established to support the trans-desert uses and mining. Most minerals operations were boom-bust phenomena over 100 years duration. Sheep and cattle grazing occurred across the desert, mostly in northern areas and higher elevations.

In the 1930's, Death Valley and Joshua Tree National Monuments (now parks) were designated. In the 1940's, the value of desert lands for military training, testing, and staging was realized for the War/Cold War efforts and several large military reservations were created. By this time monuments and military lands totaled about six million acres, about 25% of the CDCA. Until the 1950's relatively little of the desert had been visited with any intensity by humans for economic or social purposes, except perhaps for cattle and sheep grazing. Only a small amount of the desert had been temporarily or permanently disturbed.

During the 1960's the southern California population boom continued and along with that, a boom in affordable vehicles and motorcycles. The western desert became a very popular place to escape the urban routine, driving desert roads and cross country, camping, hunting, and sightseeing and motorized vehicle racing. Along with the social benefits provided by these land uses came increases in access routes, surface disturbances, and impacts to natural and cultural values. But with visitation also came an increased public awareness and concern for the desert environment.

4.1.17.2 Activities from 1970 to 2002.

Federal Land Policy and Management Act of 1976. The boom of activity in the desert, and the concurrent increase in public awareness and concern for environmental issues, helped spur Congress to pass in 1976 the Federal Land Policy and Management Act (FLPMA). FLPMA serves as the Bureau's organic act, establishing the Bureau's multiple use and sustained yield mandate, and giving BLM the authority to authorize uses and to manage casual uses of the public lands. The Bureau's multiple-use /sustained yield mandate provides opportunities for economic and social uses as well as protection and conservation of natural and cultural resources. Inherent with the multiple-use /sustained yield is the mandate to resolve conflicts in values and uses in any given place. These issues are sorted out through land use planning, relying on the best available science and public participation to achieve to arrive at informed and balanced decisions. FLPMA established the California Desert Conservation Area (CDCA), and directed BLM to inventory lands possessing wilderness characteristics and to develop a land use plan for the CDCA.

In response to these emerging conflicts, the *California Desert Conservation Area Plan* (1980, as amended) established a desert-wide land management program which included multiple-use classification guidelines and decisions for managing a variety of activities in the California Desert. Among the most significant was the decision that unrestricted motorized vehicle access on public lands was no longer allowed throughout most of the California desert. Instead vehicles were restricted, at a minimum, to existing routes of travel, except in designated open areas. Along with these access restrictions came limitations on where one could park and stop their vehicle, as well as where one could camp.

The Endangered Species Act. In 1973, Congress enacted the Endangered Species Act in an effort to stem the tide of native flora and fauna extinctions. Throughout the 1990's, approximately 20 species of plants, amphibians, reptiles, birds, and mammals were listed or proposed for listing under federal and state endangered species acts. Habitats for many of these listed, or proposed for listing, species are localized. A few, such as the desert tortoise, Mojave ground squirrel and Peninsular bighorn sheep, cover millions of acres of habitat. For many of the listed species such as the desert tortoise and Peninsular Ranges bighorn sheep, the USFWS has designated "critical habitat." The need for listing are often the result of various factors, including:

- Cumulative habitat losses from various land uses such as urban/industrial development, military exercises, or uses of public and private lands;
- Decline in habitat quality from human activities such as water diversions, casual use and wildland fire suppression;
- Disease;
- Changes in predator/prey relationships and changes to natural habitat as a result of invasions by non-native species;
- Natural rarity combined with the above.

The listing of various species has resulted in several restrictions on the public lands. Most effects relate to the listing of the desert tortoise as a threatened species in 1990 and the designation of critical habitat in 1994. Due to the desert tortoise listing, opportunities for off-highway vehicle racing have become increasingly constrained. Permits for such events as the Barstow-to-Vegas motorcycle race and the Parker 400 event have not been issued in California for more than 10 years. Following are additional prominent effects from the listing of the desert tortoise: 1) acquisitions of private lands in critical habitat and discouragement of federal disposals in critical habitat, 2) no competitive vehicle events in critical habitat, and 3) a programmatic consultation for cattle and sheep grazing that is still current in which there is no sheep grazing in critical habitat (which reduced sheep grazing in CDCA by 56%). Many proposed uses have been re-proposed outside critical habitat. Casual use recreation activities, including use of existing routes and washes, have not been affected except in some special management areas.

California Desert Protection Act. FLPMA mandated wilderness inventories be conducted and a recommendation report submitted to Congress by 1990. Until Congress acted on wilderness recommendations wilderness study areas (WSA) were to be managed so as not to compromise wilderness quality and narrow the opportunity for Congressional designation. Between 1978 and 1994 nearly half of the public lands were in WSA status which highly restricted new disturbing uses. In 1994 Congress passed the California Desert Protection Act in which 3.5 of the 13 million acres that BLM managed were transferred to the national parks system (Death Valley National Park, Joshua Tree National Park, and the new Mojave National Preserve) and nearly 40% of the remaining 9.5 million acres were designated into 69 wilderness areas. As required by statute, casual use of motorized vehicles in wilderness is prohibited. Through passage of the California Desert Protection Act, access to 50% of the CDCA was limited, including military reservations, national park system, and BLM wilderness areas. Of the 50% that is not restricted, almost half is private lands to which public uses do not apply.

Recreational activities based on motorized-vehicle use have become increasingly limited in the California desert over the past quarter century. As a result of the California Desert Protection Act of 1994, at least 637 miles of motorized-vehicle access routes (approximately 15% of routes) on public lands in the entire California Desert Conservation Area were included in new BLM wilderness areas and new national parks, and effectively closed. Among the most notable closures were segments of the East Mojave Heritage Trail, identified for vehicle touring by Friends of the Mojave Road. This has created considerable changes in recreational activities, especially in desert mountains. The most challenging mountainous 4-wheel drive roads are now closed due to wilderness designation. Rock-hounding opportunities, a popular activity among retirees, have been effectively reduced by 50% throughout the CDCA. 25% of rock-hounding sites are in national parks where rock-hounding is not allowed; the other 25% are in wilderness and not accessible to many retirees on foot.

While landowners have the right to reasonable access to their lands, the designation of wilderness has added considerable regulatory burden in order to achieve that access. Approximately 600,000 acres of State and private land are affected. Many landowners have opted to dispose of their lands within wilderness to the appropriate managing federal agency.

Both the Catellus Development Corporation (formerly the Southern Pacific Land Company) and State Lands Commission, the two largest landowners, have been engaged in such actions. These large and complex exchanges and purchases are changing the pattern of land ownership which had existed for more than a hundred years. Several millions of acres are involved. Some effects of this change is loss of the opportunity to develop private lands and loss of tax base to counties. While land exchanges are encouraged, most acquisitions to date have involved fee purchase with loss of private land tax base in most desert counties, particularly San Bernardino County. Payments in lieu of taxes (PILT) to counties does not totally compensate for such monetary loss and San Bernardino has reached the PILT maximum limit. However, the effects of this change are not all negative: State Lands Commission has acquired former federal properties elsewhere in the State which generate considerably greater economic values. Likewise, private landowners obtain cash or lands which have greater development and tax base potential. There may be a benefit to counties in so far as county services do not have to be so extended, but this benefit is unknown.

Opportunities for new rights-of-way, such as utilities and communication sites, are restricted in wilderness. However, corridors and sites for utilities have been established, especially in the more-populated areas. While, grazing is a compatible use in wilderness, grazing activities on public lands have recently been limited primarily due to Endangered Species Act issues. Public lands transferred to the National Park Service are more restricted in terms of opportunities for new rights-of-way and grazing. Ten allotments formerly managed by BLM are now included in National Park Service lands. In the new or revised general management plans developed by NPS these allotments are deleted.

The number of Wild Horse and Burro Management Areas has been progressively dropping over the past twenty years as wild herds die out or public lands are transferred to the California Department of Parks of Recreation and the National Park Service.

4.1.17.2 From 2002 and into the Future

Human migrations continue into the Southwest, spurring burgeoning urban populations and the supporting development that is occurring throughout southern California and southwestern Arizona. BLM managed public lands are becoming increasingly important to the public as a source of recreational opportunities, open space, community infrastructure support, and habitat for threatened and endangered species.

In seeking to implement its multiple use/sustained yield mandate for healthy public landscapes, the Bureau in cooperation with many agencies, jurisdictions and interests, has initiated a series of bio-regional planning efforts for the California desert. While the California Desert Conservation Area Plan (1980, as amended) has undergone numerous minor amendments over the past 20 years, these bio-regional planning efforts are designed as major amendments to the California Desert Conservation Area Plan, and cover the following planning areas: 1) the Northern and Eastern Colorado Desert (NECO), 2) the Northern and Eastern Mojave Desert (NEMO), 3) the West Mojave Desert, 4) the Imperial Sand Dunes and 5) the Coachella Valley. Military reservations are addressed in both the NECO and West Mojave

Plans. The National Park Service has revised its general plans for Joshua Tree National Park, Death Valley National Park, and the Mojave National Preserve. The Imperial Sand Dunes, NECO and NEMO plans will have Proposed Plans/Final EISs available for public review Summer 2002.

The CDCA plan amendment for the Coachella Valley would take deliberate steps for the management of threatened and endangered species, air quality and open spaces while also addressing other important quality-of-life issues such as recreation opportunities and necessary infrastructure support for communities within the planning area. The planned integration of these natural, social, economic and cultural needs is at a particularly significant crossroads in the history of the American West. As more and more private land is dedicated to support housing and urban development, decisions must be made concerning habitats to conserve in order to avoid more species listings under the Endangered Species Act. Decisions are also necessary concerning management of native habitats and open spaces to ensure they are delivering the natural, social, economic and cultural values intended.

The public and private land decisions, in a growing area like the Coachella Valley with complex land ownerships and jurisdictions, are inherently interdependent. The development of this plan amendment in coordination with those local jurisdictions and agencies, using common scientific information and linked planning processes, should help ensure well-considered public decisions designed to deliver the natural, social, economic and cultural values intended. Delivering coordinated decisions at the landscape level is consistent with addressing 1) community development and quality of life concerns, and 2) a long term framework for species and habitat conservation. Further benefits would also accrue, including the scenic vistas provided by undeveloped landscapes and the environmental health provided by protecting air and water quality.

These land use planning processes address many of these issues while options and choices still remain. With the passage of time, resources are committed by individual public and private land use decisions. The cumulative effect of these decisions may limit options to deliver quality of life amenities or conservation outcomes. Establishing a coordinated framework to support local communities and provide for long term conservation increases opportunities to deliver the intended public benefits. Stakeholder involvement and use of best available science would continue to be the keys to successful completion of these plans and their implementation.

Upon completion, approximately 50 percent of the Federal lands in the California Desert Conservation Area will be under conservation status (BLM, National Park lands and Military reservations) in order to provide for open space, the recovery of special status species and improvements in air quality. The percentages of conserved land in the Coachella Valley would be much higher (75 percent or greater). Uses and values which will be most affected by conservation measures include off-highway vehicle use and access routes, competitive events, livestock grazing, wild horse and burros, and a net reduction of tax base among some counties. However, the alternatives are deliberately designed to account for community infrastructure needs for transportation, sand and gravel sources, communication sites and energy production.

4.2 Santa Rosa and San Jacinto Mountains Trails Management Plan

4.2.1 Background

This trails management plan is being proposed to provide an endangered population of bighorn sheep protection during the critical times of the year, lambing and rearing season and the hot season. Adaptive in nature, the effectiveness of this plan will be monitored and changes made as research and monitoring efforts provide more detailed information about home range size, distribution, and ultimately, effects of trail use on bighorn sheep in the Santa Rosa and San Jacinto Mountains.

The *Recovery Plan for Peninsular Ranges Bighorn Sheep* (USFWS 2000) cites habitat loss (approximately 18,500 ac between the cities of Palm Springs and La Quinta), habitat fragmentation caused by roads (Rubin et al. 1998), disease (DeForge and Scott 1982, Wehausen et al. 1987, DeForge et al. 1995) which for many years in the Santa Rosa Mountains suppressed recruitment and contributed to a population decline, and predation which is apparently a limiting factor for some ewe groups between Highway 74 and the Mexican border (R. Botta, California Department of Fish and Game, 2002, personal communication).

The available peer-reviewed literature and publicly available data indicate that, to one extent or another, bighorn sheep are effected by recreational use of wildlands (e.g. Geist 1971, Wagner and Peek 1999, Leslie and Douglas 1980, MacArthur et al. 1982, Miller and Smith 1985, Bleich et al. 1994). Several research studies have illustrated that when bighorn sheep are disturbed their heart rates increase (MacArthur et al. 1978 and 1982, Hayes et al. 2000) and that metabolic changes can result in compromised immune function. However, what has not been clearly established is the relationship between disturbance and population dynamics. In addition, gender, group size, and time attributes are poorly documented in the publicly available spacial data. These are all identified as key variables in the peer reviewed literature. Both the lack of these data and the limitations of existing data in the public record, limit the ability to precisely tailor management actions.

Analysis of impacts to Peninsular Ranges bighorn sheep and other biological resources resulting from trails management has been broken into 4 categories: 1) documented conclusions from peer reviewed scientific studies; 2) gray literature and hypotheses; 3) unknowns and 4) facts and evidence related to potential disturbance effects on bighorn sheep in the Santa Rosa and San Jacinto Mountains, or in directly analogous situations. This is done to clearly separate fact from hypothesis, to acknowledge the unknowns, and to present the information directly related to or analogous to bighorn sheep in the Santa Rosa and San Jacinto Mountains.

Synthesis of peer-reviewed literature relevant to impact of human disturbance on bighorn sheep. Bighorn sheep are most sensitive to disturbance during the lambing and rearing season (Geist 1971, Light and Weaver 1973, King and Workman 1986, Wagner and Peek 1999, Wehausen 1980) and in lambing areas that are close to

dependable water sources (Leslie and Douglas 1980, McCarty and Bailey 1994, BLM 1980, Blong and Pollard 1968). Ewes exhibit a heightened response to disturbance about a month prior to having their lambs (Geist 1871, Hansen and Deming 1980, Wagner and Peek 1999). The onset of lambing is correlated with seasonal precipitation and forage availability (Goodson 1999, Wagner and Peek 1999, Rubin et al. 2000). In the deserts of the southwestern United States, bighorn ewes may have their lambs during any month of the year (Guy Wagner, personal communication), but in general, ewes in the Peninsular Ranges have their lambs January through June (DeForge 1982, Rubin et al. 2000, Bighorn Institute unpublished data) with the peak March 1 - April 30 (Figure 1). Lambing habitat is characterized by rugged canyons and steep, open slopes which provide escape cover from predators (Geist 1971, Wakelyn 1987, Risenhoover and Bailey 1985) and reduces impact from human disturbance as well (Risenhoover et al. 1988). DeForge (1982) observed ewes in the northern Santa Rosa Mountains giving birth in rugged canyons adjacent to the urban interface. Another critical constituent of lambing habitat is water and nutritious forage. Postpartum nutrition exerts the greatest influence on total milk yield and is more critical to the ewe than prepartum nutrition, based on the amount of weight lost by ewes fed different pre- and postpartum diets (Wehausen 1980). Ewes with lambs are typically found within 2 miles of water and will go to water every day if it is available (Monson and Sumner 1980). Inadequate water could contribute to low lamb survival in some areas and productivity and herd survivorship is reduced (Monson and Summer 1980).

In the Peninsular Ranges, outside of drought years, water is not considered a factor limiting recovery of bighorn sheep (USFWS 2000). However, some bighorn sheep in the Santa Rosa and San Jacinto Mountains have supplemented natural water with water found in the urban areas of the Coachella Valley since the 1970's (Monson and Sumner 1980). This situation is being remedied by the construction of a fence to keep bighorn sheep out of the urban interface. With the construction of the fence, bighorn sheep in the Northern Santa Rosa Mountains will be forced to find water outside of the urban areas. There are currently some plans to provide additional water for sheep to mitigate for the loss of access to forage and water within the urban environment. The effectiveness of supplying water artificially is the subject of much debate in the western United States (e.g. Broyles 1995, Broyles and Cutler 1999, Krausman and Etchberger 1993, Lee 1993). What is clear, however, is that bighorn sheep modify their behavior to avoid predictable human interactions around waterholes, timing visits to coincide with periods when humans are not present (Campbell and Remington 1981, Hamilton et al. 1982). Human activities around water holes can alter access to water (Blong 1967, DeForge 1972, Cunningham 1982, Miller and Smith 1985, Leslie and Douglas 1980, Jorgensen 1974) and may cause them to abandon the source altogether (Blong 1967). Unlike bighorn sheep in the northern latitudes, bighorn in the southern latitudes lose body fat during the hot season, when nutritional requirements are high and forage opportunities slim (Wagner and Peek 1999). Thus, if bighorn are prevented from accessing forage and water during the hot season, recruitment may be affected and the fall rut as well.

Response by bighorn sheep to disturbance varies depending on group size (Risenhoover and Bailey 1985), distance to escape terrain (Wakelyn 1987), visibility (Fairbanks et al. 1987, Risenhoover et al. 1988, Risenhoover and Bailey 1985), season (Leslie and Douglas 1980, McCarty and Bailey 1994, BLM 1980, Blong and Pollard 1968), and the history of human disturbance to the local population of bighorn (King and Workman 1986, Geist 1971, Hansen 1970, Horesji 1976). General changes in habitat use, activity patterns, and seasonal migration routes have been linked to human encounters or disturbances (Van Dyke et al. 1983, Miller and Smith 1985, King and Workman 1986, Etchberger et al. 1989, Papouchis et al. 2000, Harris 1992, Ough and deVos 1984). Bighorn sheep have been documented to exhibit elevated heart rates or demonstrate adverse reactions such as flight, in response to direct approaches by people (generally researchers) in controlled studies and especially when approached with a dog or from over a ridge (MacArthur et al. 1979, MacArthur et al. 1982, Miller and Smith 1985, Papouchis et al. 2000, Hicks and Elder 1979). Direct studies of hiking recreation, as opposed to researcher-induced responses, found that sheep avoided contact with humans when they were present but were not permanently displaced and that no differences in levels of sheep disturbance were evident when comparing heavy-use and light-use recreation areas (Hamilton et al. 1982, Hicks and Elder 1979). Bighorn sheep populations that have been exposed to high levels of human activity may exhibit stronger responses to disturbance (King and Workman 1982) but may also become habituated to predictable human activity (Campbell and Remington 1981, Hamilton et al. 1982, Papouchis et al. 2000).

Flight and cardiac response seems to be stimulated at a distance of 50-100 meters when directly approached by people on foot (Holl and Bleich 1983, MacArthur et al. 1982, Miller and Smith 1985). Response to helicopters is stimulated at about 400-meters above the ground (Bleich et al. 1994) and may cause temporary shift in habitat use patterns (Bleich et al. 1990, Bleich et al. 1994). Helicopter surveys may significantly alter the movement, habitat use, and foraging efficiency of sheep so that survivorship or reproduction is reduced (Bleich et al. 1990, Bleich et al. 1994). Unlike other forms of human disturbance such as hiking, bighorn sheep do not become habituated or desensitized to repeated helicopter flights (Stockwell 1991 *in* Bleich et al. 1994, Bleich et al. 1994, Bleich et al. 1990, Harris 1992, Miller and Smith 1985).

Bighorn sheep evolved with canine predators (Geist 1971) and thus react very strongly to domestic dogs. Disturbance of bighorn sheep by dogs causes heart rate increases and flight response (MacArthur et al. 1979, MacArthur et al. 1982, Purdy and Shaw 1981), with nervousness and alertness persisting for up to 30 minutes following an encounter and exhibiting response to subtle stimuli which otherwise evoked no response (MacArthur et al. 1982).

Hypotheses relevant to the impact of human disturbance on bighorn sheep. here are several factors which have been suggested as contributors to the decline of bighorn sheep populations in the desert southwestern United States. These include the presence of roads and ensuing habitat fragmentation (Ough and deVos 1984), fire suppression and resulting visual obscurity (Etchberger et al. 1989), trails and housing developments (Krausman et al. 2000, Kelly and Krausman 2000, Schoenecker and Krausman 2002). Goodson et al. (1999) suggested that the elimination of camping and dogs in critical bighorn sheep habitat would result in a reduction in the effects of human disturbance to bighorn sheep.

Unknowns. There remain some outstanding questions relevant to the question of human disturbance to bighorn sheep. These include, but are not limited to, the following:

1. Is there a cause-effect relationship between different types of human disturbance and the population level effects on bighorn sheep?
2. What is the relationship between population-level effects, known levels of human use, or historic factors which influence response of bighorn sheep to disturbances?
3. What were the relative numbers of predators concentrating on sheep populations now and at the time of highest sheep numbers?
4. Gender, group size, and time attributes are poorly documented in the publicly available spacial data. Both the lack of these data and the limitations of existing data in the public record limit the ability to more precisely tailor management actions.

Facts and Evidence Related to Potential Disturbance Effects on Bighorn Sheep in the Santa Rosa and San Jacinto Mountains or Directly Analogous Situations.

Ewes in the Santa Rosa and San Jacinto Mountains are constrained by the amount of available habitat which is limited by the urban interface along the toe of slope and by the chaparral zone at about 1,400 meters. At that elevation, vegetation changes and habitat attributes such as visibility and escape cover, become poor. As a result, ewes near birthing or with young lambs may be challenged to find undisturbed areas to have their lambs.

Bighorn sheep modify their behavior to avoid predictable human interactions around water holes, timing visits to coincide with periods when humans are not present (Campbell and Remington 1981, Hamilton et al. 1982).

Rubin et al (2000) found a strong correlation between seasonal precipitation, forage availability and the onset of lambing.

DeForge (1982) observed ewes in the northern Santa Rosa Mountains giving birth in rugged canyons adjacent to the urban interface.

Population levels of bighorn sheep in the peninsular ranges are now at approximately 400 adults. Population estimates are approximately 1200 during the 1970s. Disease and predation are generally acknowledged as the primary contributors to the decline.

The primary human activities or land uses potentially affecting bighorn sheep in the Santa Rosa and San Jacinto Mountains are: habitat loss or conversion, construction (housing, fencing, landscaping, golf facilities, etc.), general urban interface, hiking, horseback riding, mountain biking, vehicle use, and research.

In the past, the majority of mortality was attributable to natural causes such as predation and disease. During the past 4 years, no mountain lion kills have been recorded in the northern Santa Rosa or San Jacinto Mountains and the effects of urbanization continues to take a toll. During 1990-1999, 13 adult and 2 lamb mortalities were directly attributable to urbanization; 8 died in automobile collisions, 5 from toxic plant ingestion, 1 fence strangulation, and 1 drowned in a swimming pool (J.DeForge, personal communication 2002).

Some groups of bighorn sheep enter the urban interface, even in areas of intense human activity such as developed sites or along Highway 111, in search of forage or water.

Known lambing areas include the Bear Creek Canyon/Coyote Canyon region, Cathedral Canyon, and Bradley Canyon. Others likely exist but are unknown to BLM at this time.

Sheep population levels around Little Morongo Canyon are healthy on either side of a backcountry road with use levels similar to, or higher than, current use on Dunn Road. Use of the road is not controlled by a gate and the road communicates with the urban interface.

4.2.2 Analysis of the Alternatives

4.2.2.1 **Alternative A.**

I. Trail Use

- Voluntary trail avoidance program would be in effect. Individuals would be requested to voluntarily refrain from using trails in essential bighorn habitat from February 15 - September 30 each year.

Voluntary Trail Avoidance Program: During 2001 and 2002, BLM Sheep Ambassadors monitored compliance with voluntary closures on trails in the Santa Rosa and San Jacinto Mountains. Overall, compliance with requests to refrain from using the trails during the lambing season and hot season was 60%. A total of 4,421 people were observed using trails during 2001 and 2002; of these, 3,440 were contacted directly by sheep ambassadors at the trail heads. This number is somewhat misleading because of the inability to count users who were contacted the first time and continued to comply throughout the year. Trail users who chose not to refrain from using trails were counted each time they encountered a sheep ambassador, thus biasing the count data toward non-compliance. In 2000, a trail use survey was mailed to 700 registered voters in Palm Desert to assess attitudes about trail use and knowledge about the status of bighorn sheep (Carrie McNeil, UC Davis 2000). Of the 700 surveys mailed in August 2000, 296 (42%) had been returned by mid-October and 11% of those respondents were trail users. Of the 79 people who responded to queries about using trails under a voluntary closure, 92% said they would not use a trail under a voluntary avoidance program. The organizer of the study recommended that voluntary closures be continued during lambing and hot season. As illustrated by BLM's data collected by the Sheep Ambassadors during 2001 and 2002, it is difficult to accurately assess the percentage of people who comply with voluntary programs, thus making it difficult to assess the efficacy of such a program. In addition, there is little incentive for people to comply, other than the knowledge that they are contributing to conservation of an endangered species. Likewise, there are no consequences for those who do not choose to participate in the voluntary trail avoidance program. Because of the endangered status of bighorn sheep in the Peninsular Ranges, it may be necessary to adopt more stringent measures to facilitate and promote recovery of the population.

February 15 - September 30: The 7 ½ month closure of certain trails would provide increased protection for bighorn sheep during the lambing season and hot season.

Trail Specific Measures: Trail by trail management only targets specific trails. Although this list of trails is inclusive of known lambing areas, many other trails penetrate into lambing areas, effectively reducing the benefit of the voluntary program.

- Individuals would be requested to venture no more than 100 feet from trails for purposes of resting, nature study, or other similar activities. Bighorn sheep may adapt to certain, predictable uses, including use of trails. Off-trail activities have been shown

to elicit stronger responses from bighorn sheep (Papouchis et al 2000, Schoenecker and Krausman 2002). In addition, the 100-foot limit will reduce crushing of native vegetation and minimize the creation of new, spur trails.

- *The Santa Rosa Wilderness Area is closed to mechanized forms of transport, including mountain bikes and hang gliders, in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994. No Impacts.*

- *All trail use within essential bighorn sheep habitat would be subject to monitoring to assess impacts of trail use on bighorn sheep. This activity level management plan is intended to be adaptive in nature. Monitoring trail use and bighorn sheep population parameters will allow management agencies to assess impacts to sheep and the efficacy of the trails management plan.*

- *Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, trails would be open year-round for non-motorized use subject to existing regulations. The purpose of this trails management plan is to reduce human disturbance to bighorn sheep. Essential habitat is that habitat which is critical to the persistence of the population. Trail use outside essential habitat would have no impact on bighorn sheep.*

- *Implementation of the voluntary trail avoidance program would be undertaken upon approval of the Coachella Valley Multiple Species Plan/Natural Communities Conservation Plan. Until a decision is made through the Coachella Valley Multiple Species Plan/Natural Communities Conservation Plan, trails on BLM-managed public lands will continue to be managed under the interim management measures proposed by BLM in the Biological Evaluation on Effects of CDCA Plan on Peninsular Ranges Bighorn Sheep (BLM 2001). Continuation of the interim management measures would continue to reduce disturbance to sheep during the lambing and hot seasons; reduce disturbance from dogs and contribute to habitat improvement and maintenance via water inventory and maintenance, tamarisk eradication, fire management, and land acquisition.*

II. Cross-country travel

- *Individuals would be requested to voluntarily refrain from traveling cross-country in essential bighorn habitat from February 15 - September 30. Bighorn sheep may adapt to certain, predictable uses, including use of trails. Off-trail activities have been shown to elicit stronger responses from bighorn sheep (Papouchis et al 2000, Schoenecker and Krausman 2002).*

- *Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, cross-country travel would be allowed year-round subject to existing regulations. The purpose of this trails management plan is to reduce human disturbance to bighorn sheep. Essential habitat is that habitat which is critical to the*

persistence of the population. Cross-country travel outside of essential habitat would have no impact on bighorn sheep.

III. Camping

- *Individuals would be requested to voluntarily refrain from camping in essential bighorn sheep habitat from February 15 - September 30, except along trails not subject to the voluntary trail avoidance program.* This trails management plan is intended to reduce impacts caused by humans in bighorn sheep habitat. There are no designated campsites within the trails plan area at this time and as such, bighorn sheep are not habituated to such activities. Bighorn sheep may adapt to certain, predictable uses, including use of trails. Camping would likely have the same effect as cross-country activities, eliciting stronger responses from bighorn sheep (Papouchis et al 2000, Schoenecker and Krausman 2002).

- *from February 15 - September 30 in essential bighorn sheep habitat, individuals would be requested to camp no more than 100 feet from trails that are NOT subject to the voluntary trail avoidance program.* Bighorn sheep may habituate to certain, predictable uses (Papouchis et al 2000, Schoenecker and Krausman 2002). By remaining within 100 feet of established trails, impacts to sheep may be reduced by the predictability of the location.

- *Individuals would be required to camp at least 1/4 mile from water sources throughout the year.* This measure would reduce competition and disturbance at water sources and conforms with California Department of Game and Fish Code. Bighorn sheep have been observed waiting for humans to leave before coming to water (Hamilton et al. 1982) and have abandoned water sources altogether in the face of heavy human use (Blong 1967).

- *Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, camping would be allowed subject to existing regulations.* The purpose of this trails management plan is to reduce human disturbance to bighorn sheep. Essential habitat is that habitat which is critical to the persistence of the population. Camping outside of essential habitat would have no impact on bighorn sheep.

IV. Dogs

- *In essential bighorn sheep habitat, dogs would be allowed only in designated areas.* Bighorn sheep react very strongly to domestic dogs. Disturbance of bighorn sheep by dogs causes heart rate increases and flight response (MacArthur et al. 1979, MacArthur et al. 1982, Purdy and Shaw 1981), with nervousness and alertness persisting for up to 30 minutes following an encounter and exhibiting response to subtle stimuli which otherwise evoked no response (MacArthur et al. 1982).

- *Dog owners would be required to keep dogs under restraint to ensure they do not freely roam.* Requiring that owners keep dogs leashed in designated areas would reduce the likelihood of dogs chasing wildlife, including bighorn sheep.

- *Leash restrictions would be enforced by city, state, and federal agencies.* Enforcement of leash restrictions would increase compliance with leash restrictions and help reduce any impacts to bighorn sheep.

- *The following areas in essential bighorn sheep habitat would be approved for entry with dogs on leashes:*

- *west of Cathedral City Cove* - this area is within critical habitat but located adjacent to a road, flood control levee, and in the bottom of a wash. There are some records of sheep using the area above the wash but no records of sheep coming down into the wash. Visibility to the wash from above is good, there is adequate escape terrain nearby such that disturbance to sheep would be minimal.

- *Homme-Adams Park and adjacent lands in Palm Desert* - this proposed dog use area is located between the Cahuilla Hills subdivision near Highway 74 and Ramon Creek. There is a well-documented lambing area nearby. Located deep in the canyons, this lambing area is not within sight of the proposed dog park and as such, bighorn sheep would not be effected by this designation.

- *South of La Quinta Cove, outside of essential habitat* - this proposed dog use area is between the flood control dike and the main road around the south end of the Cove. Although outside essential habitat, bighorn sheep use the area adjacent to the Cove in Bear Creek Canyon, crossing over between the mountains to the south and the Coral Reef Mountain which rise above La Cahuilla to the north. The adjacent habitat places sheep generally above the proposed dog use area and near escape terrain, both which reduces the impact of the disturbance.

- *Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, dogs would be allowed subject to existing regulations.* No impact to bighorn sheep.

V. New Trail Development

- Proposals for new trail development inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis. Impacts to bighorn sheep would depend on location of trail, season of use, types of use, and other factors. All projects would comply with NEPA, ESA, and terms and conditions developed through Section 7 consultation with the USFWS.

VI. Trail Re-Routing

- *Proposals for trail reroutes in essential bighorn sheep habitat would be considered on a case-by-case basis, with the following criteria applied:*

- *benefits to bighorn sheep or other sensitive wildlife occur*
- *protection of other resource values (e.g., cultural resources, soils) would be considered.*

- *Habitat use and bighorn sheep distribution data support decisions.*

Impacts to bighorn sheep from trail reroute projects would depend on location of reroute, season of construction or destruction, types of use allowed, and other factors. All projects would comply with NEPA, ESA, and terms and conditions developed through Section 7 consultation with the USFWS.

VII. Trail decommission and removal

- *Proposals to decommission and remove trails inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis.* Impacts to bighorn sheep from trail reroute projects would depend on location of reroute, season of construction or destruction, types of use allowed, and other factors. All projects would comply with NEPA, ESA, and terms and conditions developed through Section 7 consultation with the USFWS.

VIII. Murray Hill Facilities

- *Picnic tables and equestrian hitching posts at the summit of Murray Hill would be relocated and could remain inside essential habitat.* The impact of disturbance by equestrians has not been studied. Additionally, data from the USFWS (2000) show few observations made of bighorn sheep in the Murray Hill area. During 2001 and 2002, BLM sheep ambassadors observed 6 equestrians using the Clara Burgess Trail which leads to the facilities on top of Murray Hill. Given the level of reported use of Murray Hill area by bighorn sheep, the impacts from people using these facilities would likely be minimal.

IX. Non-Commercial, Non-Competitive Organized Group Activities

- *Non-commercial, non-competitive organized groups would be requested to voluntarily refrain from using trails in essential bighorn sheep habitat from February 15 - September 30, except for trails that are not subject to the voluntary trail avoidance program.* See impact analysis under "Voluntary Trail Avoidance Program" above.

- *Non-commercial, non-competitive organized groups of 10 to 24 individuals would be required to obtain a free use permit for activities in essential bighorn sheep habitat throughout the entire year.* Group size may play a role in level of response by bighorn sheep (Miller and Smith 1985). Miller and Smith (1985) evaluated responses by bighorn sheep to researcher-induced disturbances and determined that sheep reacted more strongly to the presence of 2 people than 1. However, data relevant to

human group size is scarce and it is difficult to draw conclusions from a single published study. What is clear, however, is that people in bighorn habitat can cause disturbance during critical times of the year. The intent of this trails management plan is to reduce the overall level of disturbance to bighorn sheep.

- Non-commercial, non-competitive organized groups of 16-24 individuals would be requested to break into groups with no more than 15 individuals in any one group, and attempt to maintain at least ½ mile separation between groups when entering designated wilderness areas. Group size may play a role in level of response by bighorn sheep (Miller and Smith 1985). Miller and Smith (1985) evaluated responses by bighorn sheep to researcher-induced disturbances and determined that sheep reacted more strongly to the presence of 2 people than 1. Light and Weaver (1973) recommended that there be no more than 10 people in a group of hikers. However, data relevant to human group size is scarce and it is difficult to draw conclusions from a single published study. What is clear, however, is that people in bighorn habitat can cause disturbance during critical times of the year. By requiring that large groups be broken into smaller groups, bighorn sheep would be impacted several times over the course of a day instead of all at once. This "pulse" effect could prevent bighorn sheep from accessing water during passage of groups. However, use levels in the wilderness area are likely not high enough for this to be a serious problem for bighorn sheep.

- Non-commercial, non-competitive organized groups of more than 25 individuals would be required to obtain a special recreation permit from BLM when recreating on BLM-managed lands in bighorn sheep habitat, except when exemptions apply. Special recreation permits are subject to the NEPA process and section 7 consultation under the ESA. Thus, impacts to bighorn sheep would be assessed on a case-by-case basis.

- All permits would be issued for use of trails and areas where and when the voluntary trail and cross-country avoidance programs are not in effect. Same as impact analysis for voluntary trail and cross-country trail avoidance programs.

- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, non-commercial and non-competitive organized group activities would be allowed on BLM-managed land, subject to existing regulations. No impact.

X. Non-motorized commercial recreation activities

- non-motorized commercial recreation activities may be permitted in essential bighorn sheep habitat where and when the voluntary trail avoidance program does not apply. Commercial recreation events require a Special Recreation Permit and thus, would be subject to the NEPA process and section 7 consultation under the ESA. Impacts to bighorn sheep would be assessed on a case-by-case basis.

- A special recreation permit would be required for non-motorized commercial recreation activities on BLM-managed lands in the Santa Rosa and San Jacinto Mountains except when exemptions apply. Same as above.

- Special Recreation Permits would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by the BLM and in consultation with USFWS would be mandatory. Same as above.

XI. Motorized Commercial Recreation Activities

- Motorized commercial recreation activities would be prohibited year-round in essential bighorn sheep habitat except on Dunn Road.

- Motorized commercial recreation activities may be permitted October 1 to February 14 only on BLM-managed portions of the Dunn Road. Dunn Road is a winding dirt road through rugged terrain that begins at the edge of the urban interface of the Coachella Valley at an elevation of 800 feet and rises to above 4000 feet, where it connects with Highway 74 to the south. There are historic and current sheep sightings along the Dunn Road. Bighorn sheep movements between the San Jacinto Mountains and the Northern Santa Rosa Mountains occurs by sheep crossing Dunn Road (USFWS 1999). Both ewes and rams have been observed near the lower elevations of the Dunn Road. Below the Dunn Road are three lambing areas: Cathedral Canyon, Bradley Peak, and Magnesia Canyon (USFWS 1999). The Cathedral Canyon lambing and rearing area is adjacent to and partly overlapping with Dunn Road. Several studies have identified that vehicle use will modify the behavior of nearby bighorn sheep (Jorgensen 1974, Leslie and Douglas 1980, Campbell and Remington 1981, Miller and Smith 1985). Miller and Smith (1985) documented that 25% of bighorn sheep (45 out of 180 observations) immediately reacted to a parked jeep or truck by either walking or trotting away and returning to their original activity within 10 minutes, or by running away and not returning to their original activity. Jorgensen (1974), Leslie and Douglas (1980), and Campbell and Remington (1981) demonstrated behavioral reactions or change in use patterns due to vehicle use and other human activity at water sources. The intensity of motorized commercial recreation use along Dunn Road would likely diminish the seclusion of the Cathedral Canyon lambing and rearing area, thus reducing the quality of this lambing area.

- A special recreation permit would be required for motorized commercial recreation activities on BLM-managed lands, including vending associated with recreational use, except when exemptions apply.

Each application would be subject to the NEPA process and section 7 consultation under the ESA. Impacts to bighorn sheep would be assessed on a case-by-case basis.

- Special Recreation Permits would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by the BLM and in consultation with USFWS would be mandatory. Same as above.

XII. Competitive Recreation Events

- *Competitive recreation events may be permitted in bighorn sheep habitat where and when the voluntary trail avoidance program does not apply.* Each application would be subject to the NEPA process and section 7 consultation under the ESA. Impacts to bighorn sheep would be assessed on a case-by-case basis.

- *A special recreation permit would be required for all competitive recreation use of BLM-managed public lands, except when exemptions apply.* Each application would be subject to the NEPA process and section 7 consultation under the ESA. Impacts to bighorn sheep would be assessed on a case-by-case basis.

- *Special Recreation Permits would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by the BLM and in consultation with USFWS would be mandatory.* Same as above.

XIII. Motorized-vehicle use of trails

- *motorized vehicles would be prohibited on all trails in the Santa Rosa and San Jacinto Mountains except for motorized vehicles specifically approved for trail maintenance and construction projects.*

- *approval for use of motorized vehicles for trail maintenance projects in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis. Each project would be subject to the NEPA process and section 7 consultation under the ESA.* Impacts to bighorn sheep would be assessed on a case-by-case basis.

- *Motorized-vehicle use of trails may be authorized only where and when the voluntary trail avoidance program is not in effect.* See impact analysis for voluntary trail avoidance program.

XIV. Public Outreach

- *An information and education program addressing all management prescriptions herein described, upon approval, would be implemented.* Education and outreach would benefit bighorn sheep by informing the public about trail closures, reasons for management prescriptions, and the role that bighorn sheep play in the ecosystem.

4.2.2.2 Proposed Preferred Alternative B.

I. Trail Use

- *Non-motorized activities would be prohibited in Seasonal Trail Areas from January 15 - June 30, except for the following:*

Art Smith Trail - open Tuesday and Sunday each week January 15 - February 15 and May 1 - June 30.

Boo Hoff Trail - open Tuesday and Saturday each week January 15 - February 15 and May 1 - June 30.

In addition, certain trails would be posted as "closed" from July 1 - September 30 to ensure access to water by bighorn sheep and other wildlife during the hot season.

Non-voluntary: As illustrated by BLM's data collected by the Sheep Ambassadors during 2001 and 2002, it is difficult to accurately assess the percentage of people who comply with voluntary programs, thus making it difficult to assess the efficacy of such a program. In addition, there is little incentive for people to comply, other than the knowledge that they are contributing to conservation of an endangered species. Likewise, there are no consequences for those who do not choose to participate in the voluntary trail avoidance program. Because of the endangered status of bighorn sheep in the Peninsular Ranges, it may be necessary to adopt more stringent measures to facilitate and promote recovery of the population. (See also discussion under *Alternative A*).

January 15 - September 30: Bighorn sheep are most sensitive to disturbance during the lambing and rearing season (Geist 1971, Light and Weaver 1973, King and Workman 1986, Wagner and Peek 1999, Wehausen 1980) and in lambing areas that are close to dependable water sources (Leslie and Douglas 1980, McCarty and Bailey 1994, BLM 1980, Blong and Pollard 1968). Ewes exhibit a heightened response to disturbance about a month prior to having their lambs (Geist 1871, Hansen and Deming 1980, Wagner and Peek 1999) and the onset of lambing is correlated with seasonal precipitation and forage availability (Goodson 1999, Wagner and Peek 1999, Rubin et al. 2000). In the deserts of the southwestern United States, bighorn ewes may have their lambs during any month of the year (Guy Wagner, personal communication), but in general, ewes in the Peninsular Ranges have their lambs January through June (DeForge 1982, Rubin et al. 2000, Bighorn Institute unpublished data) with the peak February 15 - April 30 (Figure 1). Rubin et al. (2000) determined that 87% of the lambs born in the Peninsular Ranges were born during February - April. Thus, by implementing hard closures on trails in sensitive bighorn sheep habitat January 15 instead of February 15, ewes near parturition will benefit from the extra month of limited disturbance.

Seasonal Trail Area Measures: Trail-by-trail management only targets specific trails. The Seasonal Trail Area concept allows managers to target sensitive areas where there may be numerous un-named or un-mapped trails. This provides large blocks of habitat

for bighorn sheep that is protected from disturbance during the lambing season. (See also *discussion under Alternative A*).

- *Modifications of Seasonal Trail Area boundaries may occur where new perimeter trails are proposed and topographic limitations and/or configuration of private lands constrain trail development outside the Seasonal Trail Areas.* The Seasonal Trail Area boundaries were drawn using bighorn sheep location data and the essential habitat line. Any modifications of the Seasonal Trail Area boundaries would be assessed on a case-by-case basis and would comply with NEPA, ESA, and terms and conditions developed through Section 7 consultation with the USFWS.

- *Some trails on the perimeter of the mountains would be posted open to provide hiking opportunities year-round.* All trail use within bighorn sheep habitat would be subject to monitoring to assess the impacts of trail use on bighorn sheep. Because ewes seek out rugged, isolated areas to birth and rear their lambs (Wagner and Peek 1999, DeForge and Scott 1982, Geist 1971), open trails on the perimeter of the wildland-urban interface is not expected to have a significant impact on bighorn sheep. Use of perimeter trails may create a barrier between the wildland and urban systems, thus discouraging bighorn from using water and forage in the urban environment (USFWS 2000).

- *Individuals would be requested to venture no more than 50 feet from center-line of trails on either side for purposes of resting, nature study, or other similar activities from January 15 - June 20 in bighorn sheep habitat.* Holders of permits issued for research and extended study (subject to NEPA and ESA review) would be exempt from this requirement. Bighorn sheep may adapt to certain, predictable uses, including use of trails. Off-trail activities have been shown to elicit stronger responses from bighorn sheep (Papouchis et al 2000, Schoenecker and Krausman 2002). In addition, the 50-foot limit will reduce crushing of native vegetation and minimize the creation of new, spur trails.

- *Individuals would be required to obtain a free permit for use of the following trails from October 1 through January 14: Bear Creek Canyon and Bear Creek Oasis Trails, Cathedral Canyon Trail, Skyline Trail, North Lykken Trail. The Boo Hoff Trail and Art Smith Trail (including Dead Indian Canyon), would require that individuals obtain a free use permit year round.* The self-issue permit system would be used to monitor trail use and adapt the trails management plan when necessary to ensure the best management for recreation users, Peninsular bighorn sheep, and other wildlife. The same permit system would be used to track cross-country recreation activities. The data collected through these permits will provide a snapshot of trail use and will be combined with bighorn distribution data to determine how well the trails management plan is working.

-All trail use would be subject to monitoring to assess the impacts of trail use on bighorn sheep. No Impact to bighorn sheep (see discussion above on permit system).

-Outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, trails would be open year-round for non-motorized use, subject to existing regulations. No impact to bighorn sheep.

-Implementation - Trail Use

- Implementation of Seasonal Trail Area closures would be phased in as new perimeter trails are constructed in identified corridors. Prior to completing any phase of new trail construction, the voluntary trail avoidance program as currently implemented for the adjacent Seasonal Trail Area, would be continued. Priorities for new trail construction and the phase-in strategy for the Seasonal Trail Area closures are described in the full text of the preferred alternative. Phasing in the closures as new perimeter trails are developed will require relying on the continued goodwill from trail users voluntarily refraining from using trails in the Seasonal Trail Areas. Impacts to bighorn sheep could result from decreased compliance with voluntary program. However, at the end of each calendar year, the Trails Management Committee will review the trail use data, progress made in trail development, and bighorn sheep population numbers to, determine the effectiveness of the the phasing in, and to evaluate possible impacts to bighorn sheep. Continued monitoring by a multiple jurisdiction/multiple agency Sheep Ambassador team would continue to provide outreach and education to trail users, and to request and monitor compliance with the voluntary trail avoidance program during implementation. Each specific trail construction project will comply with NEPA and ESA.

II. Cross-country travel

- Cross-country travel would be prohibited in essential bighorn sheep habitat from January 15 to September 30, and allowed from October 1 to January 14. Bighorn sheep may adapt to certain, predictable uses, including use of trails. Off-trail activities have been shown to elicit stronger responses from bighorn sheep (Papouchis et al 2000, Schoenecker and Krausman 2002). Cross-country travel disturbs sheep because it is impossible to predict where a person might show up.

- Outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, cross-country travel would be allowed, subject to existing regulations. No impact to bighorn sheep.

III. Camping

- Camping would be prohibited in bighorn sheep habitat from January 15 - September 30 and allowed from October 1- January 14. This trails management plan is intended to reduce impacts caused by humans in bighorn sheep habitat. There are no designated campsites within the trails plan area at this time and as such, bighorn sheep are not habituated to such activities. Bighorn sheep may adapt to certain, predictable

uses, including use of trails. Camping would likely have the same effect as cross-country activities, eliciting stronger responses from bighorn sheep (Papouchis et al 2000, Schoenecker and Krausman 2002).

- Campers would be required to obtain a free use permit at the Palm Springs BLM office, the Santa Rosa and San Jacinto Mountains National Monument Visitor Center, or other locations from October 1 - January 14. Information gathered through this permit system would be used to assess numbers of campers per year in the Santa Rosa and San Jacinto mountains. Same as above but impacts would be reduced because use would occur outside of the sensitive seasons (i.e. lambing, rearing, and hot season).

- Camping would be prohibited within 1/4 mile of water sources to prevent disturbance to wildlife at these locations. Same as Alternative A.

- Camping would be allowed outside of bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, subject to existing regulations. Same as Alternative A.

IV. Dogs

- Dogs would be allowed in designated areas only. Same as Alternative A.

- Dogs would be kept under restraint to ensure that they do not freely roam. Leash restrictions would be enforced by city, state, and federal agencies. Same as Alternative A.

- The following areas in bighorn sheep habitat would be approved for entry with dogs on leashes:

- west of Cathedral City Cove
- Homme-Adams Park and adjacent lands in Palm Desert
- South of La Quinta Cove, outside of essential habitat.

Same as Alternative A.

- Outside of bighorn sheep habitat in the Southern Santa Rosa and San Jacinto Mountains, dogs would be allowed subject to existing regulations. No Impacts to bighorn sheep.

V. New Trail Development

- New trails would be developed within perimeter trail corridors (see implementation under trail use) approved in this plan. Additional new trail development would be addressed on a case-by-case basis. The Recovery Plan for Peninsular Ranges Bighorn Sheep (USFWS 2000) suggests that perimeter trails may create a barrier between the wildland and urban systems, thus discouraging bighorn from using water and forage in the urban environment (USFWS 2000). The proposal to develop new perimeter trails to replace hiking opportunities lost during the hot season and lambing season would likely benefit bighorn sheep by reducing access to the urban environment. Conversely, bighorn sheep may be impacted by loss of access to food

and water in the urban areas adjacent to the mountains, resulting in reduced fitness overall for bighorn sheep living near the urban interface. It is critical to minimize these impacts by providing water sources away from the urban environment prior to construction of any perimeter trails.

- *Guidelines for development of new perimeter trails -*
 - *new perimeter trails would generally run parallel to and not rise more than 200 feet above the toe of slope*
 - *new perimeter trails would not be constructed within 1/4 mile of water.*
 - *new perimeter trails would incorporate topographic variability where possible.*
 - *new perimeter trails would be available for year-round use.*
 - *Construction of approved perimeter trails would be allowed only between July 1 and January 14.*

Application of these guidelines would ensure that construction of new perimeter trails would remain on the perimeter of the mountains and not penetrate into bighorn sheep habitat.

- *Additional proposals for new perimeter trail development in the Santa Rosa and San Jacinto Mountains would be considered on a case-by-case basis using the criteria laid out above and subject to NEPA and ESA review.*

- *A new trail linking Deep Canyon and the west side of La Quinta Cove, connecting the cities of Palm Desert and La Quinta would be constructed. Three alignments would be considered for the connector trail. The preferred route will be identified in the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Communities Conservation Plan.*

- *North of Eisenhower Mountain - trail would be open year-round.*
- *Between Eisenhower Mountain and Indio Mountain - trail would be closed January 15 - June 30.*
- *South of Indio Mountain between Indio Mountain and Coyote Canyon - Trail would be closed from January 15-September 30.*

Criteria Matrix for Alignments of La Quinta Cove to Palm Desert Trail

	Biological Impacts	Land ownership	Buildability	Cultural Impacts
Alignment A – North of Eisenhower Mtn	Few bighorn sheep observations, no evidence of lambing here. Farthest away from bighorn lambing area in coyote canyon and bear creek area.	Primarily private land, perhaps one small piece of public land. Would require easements or cooperative agreements with city of Indian Wells, which owns the Eisenhower Mt parcel and leases access to Living Desert for trail, and other land owners.	City of Indian Wells has expressed opposition to this alignment because the trail would look down on homes. Terrain is extremely rugged - construction would be costly.	May present conflict with cultural resources. Foothills and areas conducive to travel over mountains have the potential to contain cultural resources. Adjacent areas have a high density of recorded sites.
Alignment B – between Eisenhower and Indio Mountains	Sheep observations present. 2 drainages nw of coyote creek water hole and bear creek parturition areas.	BLM, private, UCR State Land. UCR has indicated a willingness to accommodate proposed trail. Private landowners unknown.	May pose topographic challenges. Terrain is rugged and construction would be costly.	May present conflict with cultural resources where the trail dips into and crosses Deep Canyon. Foothills and areas conducive to travel over mountains have the potential to contain cultural resources. Adjacent areas have a high density of recorded sites.
Alignment C – south of Indio Mtn. (original alignment proposal)	Lots of sheep observations around coyote creek and associated drainages. Area used by bighorn ewes during spring for lambing and rearing. Excellent forage in canyon bottoms. Strong ephemeral water source in drainage south of alignment that is used extensively by bighorn sheep.	BLM, UCR State Land – no private land involved	Traverses east side of Deep Canyon via wash. Trail is already somewhat established and is hiked several times a year by various people. Wash bottom would be fairly easy to build trail in. Relatively straight shot to Deep Canyon.	May present conflict with cultural resources. Foothills and areas conducive to travel over mountains have the potential to contain cultural resources. Adjacent areas have a high density of recorded sites.

The proposed trail would connect La Quinta and Palm Desert by linking the two cities. The challenge is to find an alignment that avoids sensitive cultural resources, creates the least potential disturbance to bighorn sheep, while providing an enjoyable hiking opportunity for the people of and visitors to the Coachella Valley. Under any of the three alignment options, the trail would originate at the west side of La Quinta Cove, this trail would run west toward Deep Canyon, cross the canyon at Section 4 and 5 through the Deep Canyon Research Station, up the west side of the canyon and connecting with a proposed trail loop on Palm Desert city land adjacent to the Santa Rosa and San Jacinto Mountains National Monument. The three alignments were chosen for analysis based on the above decision matrix.

Alignment A – North of Eisenhower Mountain (*T5S, R6E, sections 1, 2, 3, 35; T5S, R5E, sections 4,5*). This alignment would present the least impact to bighorn sheep. Starting north of the western side of La Quinta Cove, this proposed trail would follow a drainage northeast toward Eisenhower Mountain. Data collected during the past 30 years indicates that bighorn sheep use the area north of Eisenhower Mountain occasionally but not with any regularity. It is probable that rams occasionally wander into this area. Lack of permanent water and abundant forage may limit use of this area by bighorn sheep.

The majority of this alignment falls into privately owned parcels of land with one exception on the east side of Deep Canyon. The City of Indian Wells owns section 35 and Larry Grafton, chief city planner, has stated that the City would oppose this alignment.

Alignment B – Between Eisenhower and Indio Mountains (*T5S, R6E, sections 11, 10; T5S, R5E, sections 4, 5*). This alignment presents some potential impact to bighorn sheep. There have been a few observations in this area during the past 30 years but nothing that indicates extensive use by sheep. This alignment would be entirely on BLM-managed public land east of Deep Canyon and on State of California land crossing Deep Canyon. This would simplify the process. During a ground reconnaissance of this route, BLM staff observed numerous sheep pellets on the east side of Indio Mountain. No sign of water was found and the tinajas in the canyons were small and had sandy bottoms, indicating that ephemeral water likely does not last long.

Alignment C – west of La Quinta Cove (*T5S, R6E, sections 14, 10; T5S, R5E, sections 4, 5*) This alignment is adjacent to some of the best bighorn sheep habitat in the Palm Springs Field Office. All sex and age classes of bighorn sheep have been observed in this area. Ewes and lambs occupy the Bear Creek, Coyote Creek and Sheep Creek drainages and adjacent tributaries, foraging on the abundance of shrubs in the washes and visiting the numerous ephemeral water sources in the canyons. There are several water sources that during years of normal rainfall hold water through the summer months. In addition to providing habitat for ewes and lambs, ram groups also use the area, foraging farther from the ewes and lambs between Martinez Canyon and the valley floor to the north.

VI. Trail Re-Routing

- *Trails would be re-routed to protect sensitive resource values (e.g. cultural resources, wildlife habitat, soils).*

- *Identification of trails to be re-routed would be based on habitat use patterns, home range, and distribution of bighorn sheep. Until sufficient data are available to identify meaningful and feasible trail re-routes, proposals regarding specific re-routes would be considered on a case-by-case basis. Impacts to bighorn sheep from trail reroute projects would depend on location of reroute, season of construction or destruction, types of use allowed, and other factors. All projects would comply with NEPA, ESA, and terms and conditions developed through Section 7 consultation with the USFWS.*

- *Trails would be re-routed around existing wildlife water sources, where feasible, to prevent disturbance to wildlife during the hot season. Same as above*

- *Construction of trail re-routes would occur only between October 1 - January 14 within bighorn sheep habitat. See impact analysis for dates of closures.*

- *Re-routing the Guadeloupe Trail to avoid desert slender salamander habitat would be proposed upon locating salamander populations and determining level of trail use. Same as above*

- *Outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, proposals for trail re-routes would be addressed on a case-by-case basis. No impact to bighorn sheep.*

VII. Trail Decommission and Removal

- *Redundant trails in the Murray Hill Complex would be identified and removed. Redundant trails are defined as those serving the same or similar purpose as other trails (e.g. connecting the same two points) and providing the same or similar recreation experience. Secondary or tertiary braided trails and trail shortcuts would generally be considered redundant. In the peer-reviewed literature available for this analysis, there are no studies which examined the density of trails relative to impacts on bighorn sheep. However, predictability may be compromised if there are numerous braided trails crossing through bighorn habitat.*

- *Additional redundant trails would be identified using aerial photography and other methods.*

-Redundant trails would be identified for permanent closure using the following criteria:

- Relocation would not be meaningful or feasible*
- Seasonal restrictions could not be effectively monitored and enforced.*
- Recurring violations of trail closures have occurred.*
- Trail removal would occur only between October 1 and January 14.*
- Consideration would be given to using redundant trails to separate potentially conflicting trail uses (e.g. horseback riding and mountain biking).*

Impacts to sheep would be determined on a case-by-case basis and all projects would comply with NEPA, ESA, and terms and conditions developed through Section 7 consultation with the USFWS.

-Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, proposals to decommission and remove trails would be addressed on a case-by-case basis. No impacts to bighorn sheep.

VIII. Murray Hill Facilities

-picnic tables and equestrian hitching posts at the summit of Murray Hill would remain in place.

The impact of disturbance by equestrians has not been studied. Additionally, data from the USFWS (2000) show few observations made of bighorn sheep in the Murray Hill area. During 2001 and 2002, BLM sheep ambassadors observed 6 equestrians using the Clara Burgess Trail which leads to the facilities on top of Murray Hill. Given the level of reported use of Murray Hill area by bighorn sheep, the impacts from people using these facilities would likely be minimal.

IX. Non-commercial, non-competitive organized group activities

-non-commercial, non-competitive organized groups would be prohibited in Seasonal Trail Areas from January 15 - June 30, and on certain trails under hot season closure, July 1 - September 30. See Seasonal Trail Area Measures.

- non-commercial, non-competitive organized groups of 10-24 individuals would be required to obtain a free use permit for activities in bighorn sheep habitat throughout the entire year. Permits would be available at the Palm Springs BLM office, the Santa Rosa and San Jacinto Mountains National Monument Visitor Center, and other locations. No impact to bighorn sheep.

- All non-commercial, non-competitive groups of more than 25 individuals using BLM-managed lands would be required to obtain a Special Recreation Permit except for when exemptions apply. Same as Alternative A.

-When entering the Santa Rosa Wilderness, noncommercial, noncompetitive organized groups of 16-24 individuals would be required to break into groups of no more than 15 individuals in any group, and attempt to maintain at least a 2-mile separation between the groups. Same as Alternative A.

- Special recreation permits would be issued through existing BLM regulatory processes, including compliance with NEPA and the Endangered Species Act. Compliance with stipulations developed by BLM and in consultation with the USFWS would be mandatory. Same as Alternative A.

- All permits would be issued only for use of trails and areas where and when the Seasonal Trail Area closures, the seasonal cross-country prohibition, or the voluntary trail avoidance program are not in effect. See impact analysis for Seasonal Trail Area, cross-country prohibition, and voluntary trail avoidance programs.

- Noncommercial, noncompetitive organized groups using State lands would be subject to the California Code of Regulations. Impacts to bighorn sheep would be assessed on a case-by-case basis, subject to California Environmental Quality Act (CEQA) and the Endangered Species Act.

- Outside bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, noncommercial, non competitive organized group activities could be allowed, subject to permission of private landowners and approval through state or federal regulatory permitting processes, where applicable. No impact to bighorn sheep.

X. Non-Motorized Commercial Recreation

- Non-motorized commercial recreation activities would be prohibited in Seasonal Trail Areas from January 15 - June 30 and on certain trails under hot season closures from July 1 through September 30. Commercial recreation events require a Special Recreation Permit and thus, would be subject to the NEPA process and section 7 consultation under the ESA. Impacts to bighorn sheep would be assessed on a case-by-case basis through this process.

- Non-motorized commercial recreation activities would be permitted in the remainder of bighorn sheep habitat where and when the voluntary trail avoidance program does not apply, subject to permission of private landowners and approval through regulatory permitting processes. Commercial recreation events require a Special Recreation Permit and thus, would be subject to the NEPA process and section 7 consultation under the ESA. Impacts to bighorn sheep would be assessed on a case-by-case basis.

- A special recreation permit would be required, except in circumstances when exemptions apply for non-motorized commercial recreation activities on BLM-managed lands, including vending associated with recreational use. Special Recreation Permits are subject to the NEPA process and section 7 consultation under the ESA. Impacts to

bighorn sheep would be assessed on a case-by-case basis.

-Special Recreation Permits for use of BLM-managed lands would be issued through existing BLM regulatory processes, including compliance with NEPA and ESA. Same as above.

Xi. Motorized Commercial Recreation Activities

- Motorized commercial recreation activities would be prohibited year-round in bighorn sheep habitat, except a portion of the Dunn road, subject to permission from private landowners. Same as Alternative A.

Dunn Road:

- Motorized commercial recreation activities between Pinyon Flats and the common boundary of Sections 32 and 3, T5S, R5E, would be considered on a case-by-case basis and allowed only from October 1 - January 14. This part of the Dunn Road is above the area used by ewes and lambs and in general, has poor habitat characteristics. The USFWS (1999) determined that use of the Dunn Road on the lower end posed significant threats to bighorn sheep in the Northern Santa Rosa Mountains and as such, recommended that vehicles remain in a caravan and that people be required to remain inside the vehicles. However, once reaching Section 33, the caravan requirement was no longer necessary and people could get out and walk around. Impacts to bighorn sheep may still occur on the upper end of Dunn Road but the terrain is relatively flat and habitat poor for bighorn sheep. Impacts to bighorn sheep from motorized commercial recreation on the upper end of Dunn Road would likely be minimal.

- Motorized commercial recreation activities would be subject to approval through regulatory permitting processes (including compliance with NEPA and the ESA), including issuance of a special recreation permit by BLM for use of BLM-managed portions of the Dunn Road.

- Motorized commercial recreation activities on the portion of Dunn Road from Cathedral City Cove to the common boundary of Sections 32 and 33 would be prohibited year round. Same as Alternative A.

Martinez Canyon Cherry Stem Road

-motorized commercial recreation activities would be prohibited year round. Prohibiting motorized commercial recreation on the Martinez Canyon cherry stem road would protect bighorn sheep during most seasons of the year. Martinez Canyon provides lambing and rearing habitat for bighorn sheep, water during the summer months, forage, and escape terrain.

XII. Competitive Recreation Events

- Competitive recreation events would be prohibited year-round in essential bighorn sheep habitat on BLM-managed public lands in the Santa Rosa and San Jacinto Mountains. No impacts to bighorn sheep.

- A special recreation permit would be required for competitive recreation use of BLM-managed public lands outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains. No impact to bighorn sheep.

XIII. Public Outreach and Environmental Education

- An information and education program addressing all management prescriptions herein described, upon approval, would be implemented.

- Guided hikes during the fall season would be undertaken by BLM in partnership with local jurisdictions and user groups to provide outreach and education.

- The lower portion of Dead Indian Canyon (about 0.75 miles up canyon) contains a prehistoric archaeological site that would be used for interpretation and education.

- Outreach and general education would not be limited to bighorn sheep ecology but would include desert ecology in general.

- Viewing areas would be established so that the public can view bighorn sheep and other wildlife from a distance. These areas would be located to prevent disturbance to the animals under observation.

Outreach and education are essential in endangered species management. Bighorn sheep in the Santa Rosa and San Jacinto Mountains have a far better chance at recovery if the local populace is involved and committed to recovery.

4.2.2.3 **Alternative C.**

I. Trail Use

- *Non-motorized activities would be prohibited from January 1 - September 30 on the trails listed.*

Same as A.

- *Non-motorized activities would be prohibited January 1 - June 30 on other trails in designated essential bighorn sheep habitat. These trails would be available for use during the summer months because there are no bighorn sheep water holes in these areas. Impacts to bighorn sheep would be minimal because sheep would likely be elsewhere looking for water. (See also discussion on water in preface to alternatives).*

- Implementation - Trail Use

- *All trail closures would be effective upon approval of the Coachella Valley Multiple Species Plan/Natural Communities Conservation Plan. Would provide immediate benefit to bighorn sheep by eliminating trail use during sensitive seasons.*

II. Cross-country travel

- *Cross-country travel would be prohibited year-round in essential bighorn sheep habitat. Same as Alternative A.*

- *Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, cross-country travel would be allowed year-round subject to existing regulations. Same as Alternative A.*

III. Camping

- *Camping would be prohibited year-round in essential bighorn sheep habitat. Same as Alternative A and B.*

- *Outside designated critical bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, camping is allowed subject to existing regulations. Same as Alternative A.*

IV. Dogs

- Dogs would be prohibited in essential bighorn habitat except in designated areas.
- Dogs would be allowed outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains subject to existing regulations.
- The following areas in bighorn sheep habitat would be approved for entry with dogs on leashes:
 - West of Cathedral City Cove
 - Homme-Adams Park and adjacent lands in Palm Desert
 - South of La Quinta Cove outside essential habitat

Same as Alternative A.

V. New Trail Development

- New trails along the mountain perimeter would be developed in identified corridors where feasible. Same as Alternative B

VI. Trail Re-Routing

- Trails would be re-routed to protect sensitive wildlife habitat or other resource values (e.g. cultural resources, soils). Same as Alternative B
- Identification of trails to be re-routed for protection of wildlife habitat would be based on the best publicly available data. Same as Alternative B.
- A re-route of a portion of the Guadeloupe Trail to avoid habitat for the desert slender salamander would be considered upon locating the salamander habitat. Same as Alternative B.
- Trail re-routes would be addressed on a case-by-case basis outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains.

VII. Trail Decommission and Removal

- Redundant trails in the Murray Hill Complex would be identified and removed. Same as Alternative B.
- Additional redundant trails would be identified using aerial photography and other methods.
- Trails would be identified for permanent closure using the following criteria:
 - Where relocation would not be meaningful or feasible
 - Seasonal restrictions could not be effectively monitored and enforced.
 - Decisions regarding permanent closure and removal of trails will be based,

in part, on reports citing recurring violations of trail closures.

-Where two or more trails have the same or similar purpose (e.g. connects the same two points or provides the same recreation experience.

Secondary or tertiary braided trails and trail shortcuts would generally be considered redundant.

Same as Alternative B.

- Outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, proposals to decommission and remove trails would be addressed on a case-by-case basis. No impact to bighorn sheep.

IX. Non-Commercial, Non-Competitive Organized Group Activities

- Non-commercial, non-competitive organized group activities would be prohibited on certain trails in essential bighorn sheep habitat when such trails are closed to non-motorized activities. Same as Alternative B.

- Non-commercial, non-competitive organized groups of 10-24 individuals would be required to obtain a free use permit for activities in bighorn sheep habitat January 1 - December 31. No impact to bighorn sheep.

- Groups of more than 25 individuals using BLM-managed lands would be required to obtain a Special Recreation Permit except for when exemptions apply. Same as Alternative A.

-Non-commercial, noncompetitive groups of 16 - 24 individuals entering the Santa Rosa Wilderness, would be required to break into groups of no more than 15 individuals in any group, and attempt to maintain at least a 2-mile separation between the groups. Same as Alternative A.

- Permits may be issued for (1) use of trails not subject to seasonal closure, and (2) for use of trails that area subject to seasonal closure, but only when closure is not in effect. Permits subject to NEPA and ESA regulations. Impacts to bighorn sheep assessed case-by-case.

- Non-commercial, non-competitive organized group activities may be allowed outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, subject to existing regulations. No impact on bighorn sheep.

X. Non-Motorized Commercial Recreation Activities

- *Non-motorized commercial recreation activities would be prohibited on certain trails in essential bighorn sheep habitat when such trails are closed to non-motorized activities. Same as Alternative B.*

- *Non-motorized commercial recreation activities may be permitted on the trails subject to seasonal closures from October 1 - December 31, and year-round on all other trails in essential bighorn sheep habitat. Same as Alternative B.*

- *A special recreation permit would be required for non-motorized commercial recreation activities on BLM-managed lands in essential bighorn sheep habitat, except where exemptions apply. Same as Alternative B.*

- *A special recreation permit may be required for non-motorized, commercial recreation activities on BLM-managed lands outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, except where exemptions apply. No impact to bighorn sheep.*

XI. Motorized Commercial Recreation Activities

- *Motorized commercial recreation activities would be prohibited year-round on BLM-managed public land in essential bighorn sheep habitat. Same as Alternative A.*

- *A special recreation permit for motorized commercial recreation activities on BLM-managed land outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be required, except where exemptions apply. No impact to bighorn sheep.*

XII. Competitive Recreation Events

- *Competitive recreation events would be prohibited year-round on BLM-managed land in essential bighorn sheep habitat. No impacts to bighorn sheep.*

- *A special recreation permit would be required for competitive recreation use on BLM-managed land outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains except where exemptions apply. No impacts to bighorn sheep.*

XIII. Motorized Vehicle Use of Trails

- *Motorized vehicle are prohibited on all trails in essential bighorn sheep habitat. No impacts to bighorn sheep.*

- *BLM-managed portions of trails that can accommodate full-size four wheel vehicle are subject to the route designation process. No impacts to bighorn sheep.*

XIV. Public Outreach

- An information and education program addressing all management prescriptions herein described, upon approval, would be implemented.

- Guided hikes during the fall season would be undertaken by BLM in partnership with local jurisdictions and user groups to provide outreach and education.

- Outreach and education would not be limited to bighorn sheep ecology but would include desert ecology in general.

- Viewing areas would be established so that the public can view bighorn sheep and other wildlife from a distance designed to prevent disturbance of the animals under observation. Same as Alternative B.

4.2.2.4 Alternative D - No Action.

I. Trail Use

- All trails would be open year-round for non-motorized activities inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, subject to existing regulations. Same as Alternative A and B.

II. Cross-country travel

- Cross-country travel would be allowed year-round inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, subject to existing regulations. Same as Alternative A and B.

III. Camping

- Camping would be allowed year-round inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains subject to existing regulations. Same as Alternative A.

IV. Dogs

- Dogs would be allowed inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains subject to existing regulations. Bighorn sheep evolved with canine predators (Geist 1971) and thus react very strongly to domestic dogs. Disturbance of bighorn sheep by dogs causes heart rate increases and flight response (MacArthur et al. 1979, MacArthur et al. 1982, Purdy and Shaw 1981), with nervousness and alertness persisting for up to 30 minutes following an encounter and exhibiting response to subtle stimuli which otherwise evoked no response (MacArthur et

al. 1982). In addition, domestic dogs will kill bighorn sheep, given the opportunity (DeForge, Bighorn Institute, personal communication, 2002). Allowing domestic dogs free run in bighorn sheep habitat is inconsistent with recovery objectives and goals.

V. New Trail Development

- Proposals for new trail development inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis. Same as Alternative A.

VI. Trail Re-routing

- Proposals for trail reroutes inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be considered on a case-by-case basis. Impacts to bighorn sheep would depend on location of trail, season of use, types of use, and other factors. All projects would comply with NEPA, ESA, and terms and conditions developed through Section 7 consultation with the USFWS.

VII. Trail Decommission and Removal

- Proposals to decommission and remove trails inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains would be addressed on a case-by-case basis. Impacts to bighorn sheep would be assessed on a case-by-case basis. All projects would comply with NEPA, ESA, and terms and conditions developed through Section 7 consultation with the USFWS.

VIII. Murray Hill Facilities

- Picnic tables and equestrian hitching posts at the summit of Murray Hill would remain in place. Same as Alternative B.

IX. Non-Commercial, Non-Competitive Organized Group Activities

- noncommercial, noncompetitive, organized groups may be allowed inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains. Subject to NEPA and ESA review, each group may be assessed individually. Impacts to bighorn sheep would be determined on a case-by-case basis.

- A special recreation permit may be required for use of BLM-managed lands by noncommercial, noncompetitive organized groups. Same as above.

X. Non-Motorized Commercial Recreation Activities

-Non-motorized commercial recreation activities may be permitted inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains. Same as above.

- *Special Recreation Permits would be required for non-motorized commercial recreation activities on BLM-managed lands, except where exemptions apply. Same as above.*

XI. Motorized Commercial Recreation Activities

- *Motorized commercial recreation activities may be permitted inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains. Same as above*

- *A special recreation permit would be required for motorized commercial recreation activities on BLM-managed lands. Same as Above.*

XII. Competitive Recreation Events

- *Competitive recreation events may be permitted inside and outside essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains. Same as above.*

- *A special recreation permit would be required for competitive recreation activities on BLM-managed lands. Same as Above.*

XIII. Motorized Vehicle Use of Trails

- *existing routes are subject to the route designation process (See California Desert Conservation Area Plan-motorized vehicle access). Impacts would be assessed on a case-by-case basis, subject to plan amendment, NEPA, and ESA processes.*

- *Approval for use of "non-road" trails by motorized vehicles for trail maintenance and construction projects inside and outside essential bighorn sheep habitat would be addressed on a case-by-case basis. Same as Alternative C.*

XIV. Public Outreach

- *Existing information and education programs pertaining to the use of trails and areas would be continued. No impact to bighorn sheep.*

5.0 THE COLLABORATIVE PLANNING PROCESS

Throughout this planning process, the BLM has strived to create as open a planning process as possible, such that opportunities for public input are not be limited to the minimum requirements set by the BLM planning regulations and National Environmental Policy Act of 1969 (NEPA). This planning process has also been deliberately designed to engage and involve local government, state agencies, other federal agencies, and Indian tribes to a very high level.

5.1 Public Participation

A Notice of Intent (NOI) to prepare a California Desert Conservation Area Plan Amendment, a trails management plan in association with the Coachella Valley Multi-Species Habitat Conservation Plan, and an environmental impact statement was published in the *Federal Register* June 28, 2000 (pages 39920-39922). Public scoping meetings were held on July 10, 11, and 12, 2000 in the cities of Cathedral City, Rancho Mirage and La Quinta.

Since then, there have been numerous public meetings to discuss development of the Coachella Valley CDCA Plan Amendment, including monthly public meetings held the fourth Thursday of every month at either the local BLM office or the Coachella Valley Association of Government's conference room from 9:00 a.m. to 12 noon. These monthly public meetings, called the Policy Action Group meetings, are being conducted as part of the overall Coachella Valley Multi-Species Habitat Conservation Plan planning effort, to which BLM is a partner. The Policy Action Group meetings are regularly attended by representatives of local jurisdictions, Native American Tribes, State and Federal government agencies, private interest groups and private citizens.

An addendum to the original notice of intent was published in the *Federal Register* on April 12, 2002 (pages 18022-18023), which presented draft planning criteria for public review and formally closed the public scoping period 30-days hence, on Monday, May 13, 2002.

This Draft CDCA Plan Amendment, draft Santa Rosa and San Jacinto Mountains Trails Management Plan, and draft environmental impact statement (EIS) are available for a 90-day public review period, beginning the date of publication of notice in the *Federal Register* by the Environmental Protection Agency. The initial distribution list of local, state and federal government and private entities receiving copies of this document is presented in Appendix A. A news release announcing the availability of the draft plans and draft EIS with instructions of how to obtain a copy was mailed to over 600 individuals, private interest groups and governmental agencies. This document is also available for public viewing at the following internet site: www.ca.blm.gov/palmsprings/.

During the public review period, three public meetings will be held to gather oral comments. Comments received will be incorporated into the Proposed CDCA Plan Amendment, Final Trails Management Plan and Final EIS, including names and street addresses of respondents. Individual respondents may request confidentiality, and must state this prominently at the

beginning of their comments. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public review in their entirety.

Upon publication, the Proposed CDCA Plan Amendment will be available for a 30-day protest period. Adversely affected entities and persons who previously participated in the planning process may file protests to the Director in accordance with 43 CFR 1610.5-2. Land use plan decisions are not appealable to the Interior Board of Land Appeals, and are not subject to regulations at 43 CFR Part 4.4. Upon resolution of any protests, the BLM Director then renders a final decision on the protest. The CDCA Plan Amendment becomes effective when the California BLM State Director signs the Record of Decision for the CDCA Plan Amendment.

The Final Santa Rosa and San Jacinto Mountains Trails Management Plan is being released at the same time as the Proposed CDCA Plan Amendment and Final EIS. The trails management plan is not protestable in accordance with 43 CFR 1610.5-2. Instead, adversely affected parties may appeal the Field Manager's decision to the Interior Board of Land Appeals in accordance with 43 CFR Part 4.4, upon issuance of a separate Record of Decision for the Santa Rosa and San Jacinto Mountains Trails Management Plan.

While the local jurisdictions continue to work out the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP) reserve system boundaries and implementation mechanisms for the CVMSHCP with the US Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG), the BLM is proceeding with the Coachella Valley CDCA Plan Amendment to meet its own commitments to complete the plan by December 31, 2002. Decisions related to the day-to-day management of the CVMSHCP reserve for which BLM has management responsibility will continue to be developed through the CVMSHCP process. Upon completion of the CVMSHCP, BLM may adopt management actions in the plan that may apply to BLM-managed public lands as an activity (implementation) level plan.

5.2 Coordination with Local Jurisdictions

The development of this CDCA Plan Amendment was conducted in coordination with the cities of the Coachella Valley, Riverside County, the Coachella Valley Association of Governments, the Coachella Valley Mountains Conservancy, and the Agua Caliente Band of Cahuilla Indians (who are also preparing a Habitat Conservation Plan).

Traditionally, plans for federal, state and local jurisdictions to address the conflicts between urbanization and protection of the Coachella Valley environment would have been addressed separately. The jurisdiction-by-jurisdiction and project-by-project approach, can result in fragmented habitat and increased costs in delivering on community needs.

In September 1994, the Coachella Valley Association of Governments, representing the County of Riverside and the nine incorporated cities of the region, took the lead in developing a landscape-level conservation plan. The goal of the plan is to preserve habitat adequate to ensure long-term survival of the valley's unique habitat and natural communities. The plan

area covers about 1.2 million acres, of which BLM administers about 280,000 acres. Sixty percent of the lands within the Coachella Valley are in private ownership, with the remaining lands under the jurisdiction of the Bureau of Land Management (BLM), National Park Service (NPS), U.S. Fish and Wildlife Service (FWS), the California Department of Fish and Game (CDF&G), the U.S. Forest Service and various native American tribes such as the Agua Caliente Band of Indians.

In 1996, BLM signed a Memorandum of Understanding (MOU) for preparation of the Plan together with six state, federal and county agencies and nine cities. A community-wide workshop on conservation planning was held in November, 1996 to introduce the multi-species habitat conservation planning concept to the Coachella Valley. Numerous public meetings and workshops have been held since then, gathering public input towards development of the CVMSHCP and CDCA Plan Amendment.

As a federal partner and participant in the locally managed Habitat Conservation (HCP) and Natural Communities Conservation (NCCP) planning process, BLM agreed to the following conservation planning goals of the Plan, which are:

- Represent native ecosystem types or natural communities across their natural range of variation in a system of conserved areas.
- Maintain or restore viable populations of the species included in the Plan so that incidental take permits can be obtained for currently listed species and unlisted species can be covered in case they are listed in the future.
- Sustain ecological and evolutionary processes necessary to maintain the viability of the natural communities and habitats for the species included in the Plan.
- Manage the system adaptively to be responsive to short-term and long-term environmental change and to maintain the evolutionary potential of lineages.

The Coachella Valley Mountains Conservancy (CVMC) and Coachella Valley Association of Governments were responsible for preparation of the non-federal lands portion of the Plan, while BLM prepared its plan amendment to coincide with, and support, the overall planning effort. All the parties worked closely with a Science Advisory Committee (SAC) and BLM biologists participated directly in the SAC on discussions that related to public land resources. The Geographic Information System (GIS) work was performed by a GIS Team consisting of a BLM GIS specialist, CVMC staff, and Riverside County GIS staff. The interagency planning process with local governments consisted of the twelve steps describe below.

- (1) Determine the species and natural communities to be included in the Plan.
- (2) Gather information on the species and natural communities.
- (3) Prepare accounts of individual species and natural communities.
- (4) Gather other pertinent information, such as topography, natural features, road network, jurisdiction boundaries, parcel configuration, current land uses and projected land uses.
- (5) Prepare a Natural Communities Map.
- (6) Analyze biological resource information to map species distribution.
- (7) Develop Site Identification Maps to delineate areas of highest biological resource value.

- (8) Delineate core habitat areas, ecological process areas, and linkages and wildlife movement corridors.
- (9) Develop conservation alternatives.
- (10) Develop and apply criteria for evaluating the conservation alternatives.
- (11) Scientific Review Panel and Agency Response to the Conservation Alternatives, and Development of a SAC Recommendation.
- (12) Development of a Preferred Alternative.

BLM has met numerous times with local jurisdictions, including Riverside County and Coachella Valley cities, to discern their interests and needs. Sometimes meetings were within the framework of the regularly scheduled monthly planning meetings; sometimes they were meetings with an individual city or centered around a group of jurisdictions with common interest in an individual issue.

5.3 Consultation and Coordination with Tribal Governments

The Federal Land Policy and Management Act of 1976 requires the Bureau of Land Management to coordinate with Indian Tribes on land use planning. Consultation on a government-to-government basis with Indian Tribes is also directed by the National Environmental Policy Act of 1969, the National Historic Preservation Act of 1966 (as amended), and Executive Order 13007.

Government-to-government consultation was initiated by letter in November of 2000. This letter invited introduced the need for and intent of the planning process and invited Native American comment and participation in the planning process. The Agua Caliente Band of Cahuilla Indians, Augustine Band of Mission Indians, Cabazon Band of Mission Indians, Morongo Band of Mission Indians, Santa Rosa Band of Mission Indians, Torres-Martinez Band of Desert Cahuilla Indians, and Twenty-Nine Palms Band of Mission Indians were contacted. Follow-up discussions occurred with staff members of the Agua Caliente and Morongo Bands. The Agua Caliente Band of Cahuilla Indians is actively engaged in a similar land use planning process which parallels BLM's own efforts.

In March of 2002, as the planning document evolved and potential land management actions became more clearly defined, a second letter was sent to update tribes and to continue government-to-government consultation. This letter outlined potential effects to cultural resources and solicited comments related to cultural resources or areas of traditional cultural importance. This second letter was sent to the following Tribes: Agua Caliente Band of Cahuilla Indians, Augustine Band of Mission Indians, Cabazon Band of Mission Indians, Cahuilla Band of Indians, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Los Coyotes Band of Indians, Morongo Band of Mission Indians, Ramona Band of Mission Indians, Santa Rosa Band of Mission Indians, Torres-Martinez Band of Desert Cahuilla Indians, and Twenty-Nine Palms Band of Mission Indians. Follow-up discussions were conducted with representatives of the Augustine, Morongo, and Fort Mojave groups. The Bureau of Land Management also requested a record search of the sacred lands files of the Native American Heritage Commission.

Given their parallel planning effort and the inter-related nature of some decisions, BLM met regularly with the tribal council and staff of the Agua Caliente Band of Cahuilla Indians to coordinate planning alternatives, proposals and analysis. Specific areas of coordination included management of the Santa Rosa and San Jacinto Mountains National Monument, management of cultural resources, control of exotic plants (e.g. tamarisk), and the status of wild horses in Palm Canyon.

5.4 Consultation with State and Federal Agencies

BLM has informally consulted with the US Fish and Wildlife Service and the California Department of Fish and Game, both as part of the interagency (CVAG) planning process and in direct meetings. Consultation has been ongoing since 1996 as the Draft CDCA Plan Amendment/ EIS was being developed in coordination with the Coachella Valley Multiple Species Habitat Conservation Plan. As an interim measure, BLM initiated formal consultation on January 31, 2001 on the current land use plan level decisions and measures affecting the planning area. The interim consultation included temporary management measures initiated pending completion of the plan amendment.

BLM initiated formal consultation with the U.S. Fish and Wildlife Service in June 2002 under Section 7 of the Endangered Species Act on the portions of the California Desert Conservation Area plan affecting the planning area in combination with the currently proposed plan amendment. The purpose of consultation is to insure that the combined effect of federal actions authorized under the land use plan is not likely to jeopardize the continued existence of any endangered or threatened species, or result in the adverse modification of critical habitat of such species. The formal consultation process will be completed upon issuance of a Biological Opinion by the USFWS.

BLM is also in consultation with the California State Historic Preservation Officer (SHPO) under the 1998 State Protocol Agreement between the California State Director of the Bureau of Land Management (BLM) and the California State Historic Preservation Office. The protocol requires that the BLM invite SHPO participation in land use plans in order to provide opportunity 1) to identify issues that should be addressed in the proposed plan and 2) to comment on any proposed cultural resource use allocations. BLM also submits draft and final land use plans to SHPO for review and comment. An early notification and invitation to participate in identification of issues was submitted to the SHPO's office in September of 2001.

BLM also met with the State Historic Preservation Officer in Sacramento in February 2002 to facilitate consensus between the agencies on the approach taken to address cultural resources under the plan amendment. During the meeting, BLM briefed the SHPO staff on the planning effort and presented a proposal for completing field inventory in support of the planning effort. This proposal was submitted formally for SHPO review on March 25, 2002.

5.5 Development of Trails Management Plan Alternatives

Numerous public working group meetings were held to help develop the trails management plan for the Santa Rosa and San Jacinto Mountains. Most of these meetings have also been held in partnership with the Coachella Valley Multi-Species Habitat Conservation Plan team, in order to provide the public “one-stop shopping” planning participation, and to support and reinforce the cross-jurisdiction approach to planning for the Coachella Valley.

In response to the ESA listing of the bighorn sheep in the peninsular ranges, and in recognition that the potential for conflicts between trail uses and bighorn sheep habitat use could be controversial, BLM sponsored a facilitated public workshop called “Trails, Bighorn Sheep & You” at the Living Desert in Palm Desert on the evening of June 24, 1999. As an outcome of the workshop, the Coachella Valley Mountains Conservancy and BLM then facilitated a series of open meetings commonly known as the Sheep and Trails Working Group.

Thirteen Working Group meetings were held between August 19, 1999 and November 8, 2001 with attendance from trail user groups, local jurisdictions, California Department of Fish and Game, U.S. Fish and Wildlife Service, U.S. Forest Service, Coachella Valley Association of Governments, the Agua Caliente Band of Cahuilla Indians and various interest groups including the Sierra Club and the Building Industry Association. Meetings were held in the evening to make it easier for the public to attend. The purpose was to explore alternatives that could meet the goals of supporting recovery of sheep populations and providing reasonable opportunities for recreation.

Early in the facilitated process, BLM also sponsored a televised forum at Palm Springs City Hall which included presentations on bighorn sheep biology and the opportunity for the public to ask questions of the biologists present. Sub-groups of the working group also formed to look at new trails, especially peripheral trails in the Santa Rosa Mountains, and brought ideas and proposals back to BLM. Many of these efforts also included field visits.

BLM, in cooperation with Coachella Valley Association of Governments and Coachella Valley Mountains Conservancy, also strongly emphasized trails issues at the scoping meeting held on July 11, 2000 at Cathedral City Council Chambers.

Together with the public participation, BLM conducted a focused effort to gather input from sheep biologists, many of whom could not attend the working group meetings. The intent was to define, to the degree possible, which biological concepts were supported by peer reviewed studies, by “gray” literature (e.g. analysis and argumentation in journals), by widely shared, expert opinion, or by an untested hypothesis or opinion. This then could be matched to available facts regarding sheep populations within the planning area.

In addition to being represented by a biologist or manager at Recovery Team meetings where trails alternatives under discussion were periodically presented, BLM also held a joint meeting with the Recovery Team at University of California at Davis September 28-29, 2000 to review the status of the bighorn sheep science as it related to trail use. Sheep biologists beyond

those who were on the Recovery Team were also invited to the meeting and several attended. A draft literature review related to sheep and trails was reviewed and edited.

BLM then held individual meetings or discussions with sheep biologists in the peer reviewed literature who could not attend the meeting but wanted to contribute their ideas concerning bighorn sheep and trails. An additional draft of the "Status of the Science" was made available to all those who contributed during the editing process (via internet) as a check on the accuracy of the literature citations and representations. The final "Status of the Science" document was then placed on BLM's web page for public review and use and continues to be available at <http://www.ca.blm.gov/palmsprings/whcbighorn.html>.

The combined result of these working group and science review processes was a set of four alternatives, which BLM then refined with each of the jurisdictions having a management or consultation role relative to the Trails Management Plan. While BLM's role in the Trails Management Plan primarily relates to public lands, land ownership and jurisdiction in the Santa Rosa and San Jacinto Mountains require a shared commitment from the cities adjacent to the mountains, Riverside County, State agencies and the Forest Service if the trails are to be managed as a system.

5.5 List of Preparers

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Special Thanks to the following for their review, input and assistance

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GLOSSARY of TERMS and ACRONYMS

A

Accelerated Erosion: Soil loss above natural levels resulting from human activities.

Action Plan: A plan designed to provide details on a short-term activity (e.g., bighorn sheep transplant, prescribed burn).

Activity Plan: A detailed plan for managing a single resource program or a given area. The need for an activity plan is usually identified in a land use plan.

Adverse Effect (Cultural Resources): Alteration of the characteristics which contribute to the use(s) determined appropriate for a cultural resource or which qualify a cultural property for the National Register to such a degree that the appropriate use(s) are diminished or precluded or the cultural property is disqualified from National Register eligibility. Criteria in the regulations of the Advisory Council (36 CFR, Part 800) guide the determination of adverse effects.

Age Class: An age interval, usually with a 10 to 20 years span, by which a vegetative area is classified (e.g. a 80-100 year old stand of bitterbrush).

Age Structure: The distribution of animals among various defined age classes (e.g., 0-1, 1-2, 2-5, 5-10, 10-15, 15-30) used in describing the dynamics of an animal population.

Air Pollution: Accumulation of aerial wastes beyond the concentrations that the atmosphere can absorb and which may damage the environment.

Air Quality Classes: Classes established by the Environmental Protection Agency (EPA) that define the amount of air pollution considered significant within an area:

- Almost any change in air quality would be considered significant
- Deterioration normally accompanying moderate, well-controlled growth would be considered insignificant.
- Deterioration up to the National Standards would be considered insignificant.

Alien Plants/Animals: Species which are not native to the area; also termed "exotic".

Allotment: An area of land designated and managed for the grazing of livestock by one or more livestock operators. It generally consists of public lands, but may include parcels of private and other Federal or State owned lands.

Allotment Categorization: As an aid in prioritizing grazing allotments for development of management plans, BLM has placed all allotments into one of three categories: improve (I), maintain (M), or custodial (C).

Glossary

Allotment Management Plan (AMP): An activity plan for livestock grazing. The plan will include management goals and objectives, supporting facilities, the sequence of actions for achieving objectives, and procedures for evaluation accomplishments.

Alluvial Fan: A fan-shaped accumulation of disintegrated soil material; deposited by water and located in a position where the water departs from a steep, narrow coarse to enter upon a flat plain or an open valley bottom.

Alluvium: Material, including clay, silt, sand, gravel, or similar unconsolidated sediments, deposited by a streambed or other body of running water.

Ambient Air Quality: Prevailing condition of the atmosphere at a given time; the outside air.

Animal Unit (AU): A measurement of animal numbers based upon the equivalent of a mature cow with calf (1000 pounds live weight); roughly one cow with calf, one horse, five sheep, or five deer. One burro equals 7/10 ths.

Animal Unit Month (AUM): The amount of forage necessary to support a cow and her calf for one month. One AUM will also support five sheep or goats, a bull, and a horse for one month.

Appropriate Management Level (AML): A single number which is the highpoint of an established population range to maintain a thriving natural ecological balance, based on available forage, water, and other resource needs or conflicts (relating to management of wild horses and burros).

Aquifer: A water bearing unit of permeable rock or sediment that is capable of yielding water to wells.

Area of Critical Environmental Concern (ACEC): Special Area designation established through the Bureau's land use planning process (43 CFR 1610.7-2) where special management attention is needed to protect and prevent irreparable damage to important historical, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. The level of allowable use within an ACEC is established through the collaborative planning process. Designation of an ACEC allows for resource use limitations in order to protect identified resources or values.

Area of Potential Effect (APE): Primarily used in analysis of cultural resources.

B

Biomass: The total amount of living plants above the ground in an area at a given time.

Browse: *n* That part of leaf and twig growth of shrubs, woody vines, and trees; available for animal consumption. *vb* To consume or browse.

Browsers: Animals that feed primarily on browse.

C

Campsite: A cultural site type representative of all periods consisting of temporary habitat areas which usually contain a lithic scatter, evidence of fire use, ground stone, and pottery scatter.

Candidate Species: Any species of animal or plant or population thereof for which the USFWS currently has on file substantial information on their biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species. Issuance of proposed rules for listing are presently precluded by other higher priority listing actions.

Canopy Cover: The cover of leaves and branches formed by the tops or crowns of plants as viewed from above.

Carrying Capacity: Maximum stocking rate possible without inducing damage to vegetation or related resources. It may vary from year to year on the same area due to fluctuating weather conditions and forage production (see grazing capacity).

Catastrophic Event: A large scale, high intensity natural disturbance that occurs infrequently (e.g., flood, fire).

Categories, Desert Tortoise: The classification of desert tortoise habitat, applied only to BLM-administered Federal lands, for overall management for viable populations of desert tortoise. Tortoise habitat was assigned according to relative importance, manageability, and population density.

Cave: Any naturally occurring void, cavity, recess, or system of interconnected passages which occurs beneath the surface of the earth or within a cliff or ledge (including any cave resource therein, but not including any mine, tunnel, aqueduct, or other man-made excavation) and which is large enough to serve as cave habitat for wildlife. Such term shall include any natural pit, sinkhole, or other feature that is an extension of the entrance.

Glossary

Climax Vegetation Community: The final or stable community in a series of successive vegetation states which is self-perpetuating and in dynamic balance with the physical and biotic environment.

Community: A group of plants and animals living together in a common area and having close interactions.

Compensation: A form of mitigation performed off of the project site.

Concentration Area (Critical Area): That portion of the herd area where animals tend to congregate and where forage impacts are most extreme (related to wild horses and burros).

Conserve: The use of "all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Endangered Species Act are no longer necessary...."

Conservancy: A non-profit, privately funded organization whose purpose is to acquire lands for conservation of natural elements.

Conservation Areas: Areas with a special area designation in order to protect biological resources, such as Areas of Critical Environmental Concern, Wildlife Habitat Management Areas, Santa Rosa and San Jacinto Mountains National Monument, and BLM managed lands within the conservation system approved by BLM in support of the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP).

Consult/Consultation: A cooperative effort established by the Endangered Species Act between Federal agencies and the USFWS. The purpose is to ensure that agency actions conserve listed species, aid in recovery of listed species, and protect critical habitat.

Coordinated Resource Management Plan: A plan for management of one or more allotments that involves all the affected resources (e.g., range, wildlife, and watershed).

Critical Habitat: Habitat designated by the USFWS under Section 4 of the Endangered Species Act, under the following criteria 1) specific areas within the geographical area occupied by the species at the time it is listed, on which are found those physical or biological features (a) essential to the conservation of the species and (b) which may require special management of protection; or 2) specific areas outside the geographical area by the species at the time it is listed but are considered essential to the conservation of the species.

Critical Period: The time period the entire herd is within the critical area, usually during the hot or dry seasons.

Glossary

Crucial Habitat: That area designated by BLM that is necessary to the existence, perpetuation, or introduction of one or more special status species during critical periods of their life cycle.

Cultural Property: Any definite location of past human activity, habitation or use identified through a field inventory, historical documentation or oral evidence. This term may include; 1) archeological or historic sites, structures and places, and 2) sites or places of traditional cultural or religious importance to a specific group, whether or not represented by physical remains. Cultural properties are managed by the system of inventory evaluation, protection and use.

Cultural Resources: Those fragile and non-renewable remains of human activities, occupations, and endeavors as reflected in sites, buildings, structures, or objects, including works of art, architecture, and engineering. Cultural resources are commonly discussed as prehistoric and historic values, but each period represents a part of the full continuum of cultural values from the earliest to the most recent.

Cultural Site: A physical location of past human activities or events. Cultural resource sites are extremely variable in size and range from the location of a single cultural resource object to a cluster of cultural resource structures with associated objects and features. Prehistoric and historic sites, which are recorded as cultural resources, have sociocultural or scientific value and meet criterion of being more than fifty years old.

D

Delisting: The process of removing a species from the list of threatened and endangered species. See also *recovery*.

Deme: A subgroup of a metapopulation. In this Plan it mainly applies to large animals such as bighorn sheep and deer.

Density: The number of organisms per unit area.

Desert Advisory Council: See Resource Advisory Council.

Desert Tortoise Recovery Plan: Recovery plan written by the USFWS, specific to the listing of the desert tortoise.

Designated Right-of-Way Corridor: A parcel of land, usually linear in shape, that is identified through Secretarial Order in a land use plan or by other management decision as a preferred location for existing and future rights-of-way grants.

Glossary

Desired Beneficial Use: The use of water that is deemed beneficial and desirable; guidance for making determinations is contained in the Clean Water Act (Federal), Executive Order 12088, Porter-Cologne Act (California), Clean Water Act (Nevada), and Memorandum of Understanding between the California Water Resource Control Board, BLM, and others.

Diversity: Physical, biological, or cultural variety.

Dual-Sport Event: a motorcycle event in which vehicles must be licensed for street use and have a State off-highway vehicle tag. These events are low-speed, non-competitive, touring events.

E

Early Seral Stage: A plant community with a species composition which is 0-25% of the potential natural community one would expect to find on that ecological site.

Ecological Site: A kind of land with a specific potential natural community and physical site characteristics differing from other kinds of land in its ability to produce vegetation and to respond to management.

Ecological Status: The state of vegetation and soil condition of an ecological site in relation to the potential natural community for the site. Vegetation status is the expression of the relative degree to which the kinds, proportions and amounts of plants in the community resemble that of the potential natural community. If classes are used, they should be described in ecological rather than utilitarian terms. Soil status is a measure of present vegetation and litter cover relative to the amount of cover needed on the site to prevent accelerated erosion.

Ecosystem: A complex self-sustaining natural system, which includes living and non-living components of the environment and the circulation of matter and energy between organisms and their environment.

Endangered Species: as defined in the Federal Endangered Species Act, any species which is in danger of extinction throughout all or a significant portion of its range. For terrestrial species, the USFWS determines *endangered* status.

Energy Flows: Pertaining to the flow of energy through an ecosystem; usually described as an "energy pyramid." The rates of energy flow can vary on rangelands in both space and time. An example of energy flow is -- sunlight energy is captured and converted into carbohydrates by green plants (producers) through photosynthesis; deer (primary consumers) eat the plants; coyotes (secondary consumers) eat deer; and eagles (tertiary consumers) eat coyotes.

Glossary

Environmental Assessment (EA): A public document for which a federal agency is responsible that serves to; (a) briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement or a finding of no significant impact; (b) aid an agency's compliance with the National Environmental Policy Act (NEPA) when no Environmental Impact Statement is necessary; (c) Facilitate the preparation of a statement when one is necessary. An EA includes brief discussions of the need for the proposal and of the environmental impacts of the proposed action and other alternatives.

Environmental Consequence: A temporal or spatial change in the human environment caused by an act of man. The change should be (1) perceptible, (2) measurable, and (3) relatable through a change agent to a proposed action or alternative. A consequence is something that follows an antecedent (as a cause or agent). Consequences are synonymous with impacts and effects.

Environmental Impact Statement: A written analysis of the impacts on the natural, social, and economic environment of a proposed project or resource management plan.

Ephemeral Forage: Part-time or seasonal forage; forage produced by annual forage species.

Ephemeral Range: Grazing lands that do not consistently produce forage but periodically provide annual vegetation as livestock forage.

Erosion: Detachment and movement of soil from the land by wind, water, or gravity.

Evaluation (Cultural Resources): The analysis of cultural resource inventory records, the application of professional judgement to identify characteristics that contribute to possible uses for recorded cultural resources, and the recommendation of appropriate use(s) for each resource or group of resources. National Register eligibility criteria, 36 CFR part 60, are interpreted through or with reference to BLM evaluation criteria.

Exclosure: a fence that completely surrounds a relatively small area (e.g., a wetland or research plot) to exclude large non-native animals such as cattle and burros.

Existing Right-of-Way Corridor: See Designated Right-of-Way Corridor.

Exotic Species: A species of plant or animal that is not native to the area where it is found. Any species that is not indigenous, native, or naturalized.

F

Federal Land: Land owned by the United States, without reference to how the land was acquired or which Federal Agency administers the land, including mineral and coal estates underlying private surface.

Federal Land Policy and Management Act of 1976 (FLPMA): Public Law 94-579, which gives the BLM legal authority to establish public land policy, to establish guidelines for administering such policy and to provide for management, protection, development and enhancement of the public land.

Fire Management: The integration of fire protection, prescribed burning, and fire ecology knowledge into multiple use planning, decision making, and land management activities.

Forage: Browse and herbage which is available and can provide food for animals or be harvested for feeding.

Forage Utilization: An index to the extent forage is used; utilization classes range from slight (less than 20%) to severe (more than 80%).

Forb: (1) Any herbaceous plant other than those in the Gramineae (true grasses), Cyperaceae (sedges), and Juncaceae (rushes) families - i.e. any non-grasslike plant having little or no woody material on it; or (2) a broad-leaved plant whose above ground stem does not become woody or persistent.

Fundamentals of Rangeland Health: As described in 43 CFR 4180; the conditions in which rangelands are in properly functioning physical condition, ecological processes are supporting healthy biotic populations and communities, water quality is meeting State standards and BLM objectives, and Special Status Species habitat is being restored or maintained.

G

General Plan: a fundamental policy document for a local government (i.e., county or city) usually including a plan establishing zones of allowable land uses and intensity of use (e.g., residential, commercial, industrial, open space).

Grass: Any of a family of plants with narrow leaves, jointed stems, and seed-like fruit.

Grazing Capacity: The maximum stocking rate for grazing animals possible without inducing damage to vegetation or related resources.

Grazing Preference: The total number of AUMs of livestock grazing on public lands apportioned and attached to base property owned or controlled by a permittee or lessee. Active preference combined with suspended non-use make up total grazing preference.

Ground Cover: Small rocks, litter, basal areas of grass and forbs, and aerial coverage of shrubs that provide protection to the soils surface (i.e. in contrast to bare ground).

Ground Water: Water beneath the land surface, in the zone of saturation.

Guidelines for Livestock Grazing: Livestock grazing management tools, methods, strategies, and techniques designed to maintain or achieve healthy public lands; as defined by the Standards for Rangeland Health.

Gully Erosion: Removal of the soil leading to formations of relatively large channels or gullies cut into the soil by concentrations of runoff.

Guzzler: (general term covering guzzler, wildlife drinker, tenaja) A natural or artificially constructed structure or device to capture and hold naturally flowing water, and make it accessible to small and/or large animals. Most guzzlers involve above or below ground piping, storage tanks, and valves. Tenajas are natural depressions in rock which trap and hold water. To some tenajas, steps are sometimes added to improve access and reduce mortality from drowning.

H

Habitat: The natural environment of a plant or animal.

Habitat Conservation Plan (HCP): a comprehensive planning document pursuant to Section 10(a)(2) of the Endangered Species Act that is a mandatory component of an incidental take permit for a project with no Federal nexus. (See Multi-Species Conservation Plan.)

Habitat Management Plan (HMP): An activity plan for wildlife/plant resources for a specific geographical area of public land. It identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives, and outlines procedures for evaluating accomplishments.

Habitat Requirements: A specific set of physical and biological conditions that surround a single species, a group of species, or a community of species upon which the species or associations are dependent for their existence. In wildlife management, the major components of habitat are considered to be food, water, cover and living space.

Glossary

Heavy Use: Indicates that 60 to 80% of the year's forage production has been eaten or destroyed by grazing animals.

Herbaceous: Vegetation with little or no woody component; non-woody vegetation such as grasses and forbs.

Herd Area (HA): (related to wild horses and burros) The geographic area identified as having been used by a wild horse or burro herd as its habitat in 1971.

Herd Management Area (HMA): (Related to wild horses and burros) Area or areas established within the herd area for the maintenance of wild horses and burros.

Herd Management Area Plan (HMAP): (Related to wild horses and burros) A plan approved by an authorized officer for a specific geographical area or areas of public lands which identifies how wild horse or burro herds will be managed. The plan should identify use areas and habitat, population and habitat objectives, the sequence of actions for achieving objectives, and procedures for evaluating accomplishments.

Historical Cultural Resources: Historical Cultural Resources include all mines, ranches, resorts, trails, railroads, towns, and other evidence of human use from the entrance of the Spanish to 1938.

I

Incidental Take: That take which is incidental to the pursuit of an otherwise legal activity. Legal incidental take is set forth by the USFWS in a biological opinion under Section 7 of the Endangered Species Act.

Indicator: Quantitative measure of an ecosystem element which is used to describe the condition of an ecosystem; changes in indicators over relatively short periods of time are used to measure affects of management.

Isolated Tract: A parcel of public lands surrounded by non-federal lands.

K

Key Area: A relatively small portion of land selected, based on its location, use, or grazing value, as a location for monitoring the effects of grazing use. It is assumed that key areas, if properly selected, will reflect the effects of current grazing management over all or a part of a pasture, allotment, or other grazing unit.

Key (Forage) Species: (1) Species that, because of their importance, must be considered in a management program; or (2) forage species whose use shows the degree of use of associated species.

L

Landscape (Scale): An area of interacting ecosystems where patterns are repeated because of geology, landform, soils, climate, biota, and human influences throughout the area. Applied in terms of 100's to 1000's of acres.

Land Disposal: A transaction that leads to the transfer of title of public lands from the Federal Government.

Land Tenure. Land tenure refers to ownership of a parcel of land. BLM-managed public lands are owned by the United States Government for the citizens of the United States.

Late Seral: A plant community with a species composition which is 51 to 75% of the potential natural community one would expect to find on that ecological site.

Leasable Minerals: Minerals such as coal, oil shale, oil and gas, phosphate, potash, sodium, geothermal resources, and all other minerals that may be acquired under the Mineral Leasing Act of 1920, as amended.

Lithic: A stone or rock exhibiting modification by humans. It generally applies to projectile points, scrapers, and chips, rather than ground stone.

Lithic Scatter: A prehistoric cultural site type where flakes, cores, and stone tools are located as a result of the manufacture or use of the tools.

Locatable Minerals: A mineral subject to location under the 1872 mining laws. Examples of such minerals would be gold, silver, copper and lead as compared to oil and natural gas, which are leasable minerals.

M

Management Framework Plan (MFP): A planning decision document that establishes for a given planning area land use allocations, coordination guidelines for multiple use, and management objectives to be achieved for each class of land use. A MFP is prepared in three steps: (1) resource recommendations, (2) impact analysis and alternative development, and (3) decision making.

Management Oversight Group (MOG): a group of high-level management representatives from USFWS, BLM, NPS, Biological Resources Division of U. S. Geological Survey, state wildlife agencies, Edwards Air Force Base, China Lake Naval Weapons Center, the Army National Training Center (Fort Irwin), and Twentynine Palms Marine Corps Base. The MOG establishes overall policy for tortoise management.

Glossary

Manipulative Research: Research that introduces disturbance and other invasive methods such as digging and removing soil; clipping, burning, removing vegetation (see Research).

Metallic Minerals: Those minerals whose native form is metallic or whose principle products after refinement are metallic.

Metapopulation: An interdependent set of subgroups. In the case of mammals they are connected by corridors.

Mid Seral Stage: A plant community with a species composition which is 26 to 50% of the potential natural community one would expect to find on that ecological site.

Mineral Entry: The location of mining claims by an individual to protect his right to a valuable mineral.

Mineral Withdrawals: Closure of land to mining laws, including sales, leasing and location, subject to valid existing rights.

Mitigation: in general, a combination of measures to lessen the impacts of a project or activity on an element of the natural environment or various other cultural or historic values; more specifically, as defined by the Council on Environmental Quality in its regulations for implementing NEPA, mitigation includes: (a) avoiding the impact, (b) minimizing the impact, (c) rectifying (i.e., repairing, rehabilitating, or restoring) the impact (d) reducing or eliminating the impact through operations during the life of the project, or (e) compensating by replacing or substituting resources (40 CFR Section 1508.20).

Moderate Use: Indicates that 40 to 60% of the current years forage production has been eaten or destroyed by grazing animals.

Monitoring: The timed collection of information to determine the effects of resource management and to identify changing resource conditions or needs.

Mortality Rate: This is the number of deaths/100 population or group that must be subtracted from observed recruitment (e.g., foals/100 adults) to determine accurate population projections.

Motorized Vehicle Access (Open, Limited, and Closed Areas): Areas open, limited, and closed to motorized-vehicle access are clearly-defined areas designated through the land use planning process. In open areas, vehicle travel is permitted anywhere if the vehicle is operated responsibly in accordance with regulations (43 CFR 8341 and 8343), and is subject to permission of private land owners if applicable. In limited areas, motorized-vehicle access is allowed on specified routes of travel; at a minimum, use is restricted to existing routes. In closed areas, vehicle travel is not allowed.

Motorized-Vehicle Access (Route Designation): *Casual use* of public lands in the context of motorized-vehicle access is defined as the use of routes not requiring a specific authorization. *Authorized use* in such context is the use of routes approved through a permitting process for specific activities (e.g., rights-of-way issued for development of communication sites or wind energy facilities). The designation of routes as “open,” “limited,” and “closed” is generally applicable to both casual and authorized users of BLM-managed lands. Route designations apply only to routes and portions thereof on BLM-managed lands. These designations constitute CDCA Plan decisions. Changes to these decisions would require amending the CDCA Plan.

Multiple Use: Describes a fundamental mandate to manage lands, uses, and resource values in a manner that promotes social and/or economic uses by the public in the combination with protection of cultural resources and conservation of biological resources on a sustained yield basis. Relative resource values are considered but not necessarily the combination of uses that will give the greatest potential economic return or the greatest unit output.

Multiple Use Classification: Public lands are assigned a multiple use classification (MUC) according to the allowable level of multiple use. Class C (Controlled Use) designation is the most restrictive, and is assigned to wilderness and wilderness study areas with minimal levels of multiple use. Class L (Limited Use) lands are managed to provide lower-intensity, carefully controlled multiple use of resources while ensuring that sensitive values are not significantly diminished. Class M (Moderate Use) lands are managed to provide for a wider variety of uses such as mining, livestock grazing, recreation, utilities and energy development, while conserving desert resources and mitigating damages permitted uses may cause. Class I (Intensive Use) provides for concentrated uses of lands and resources to meet human needs.

Multi-Species Conservation Plan: same as (see) Habitat Conservation Plan.

N

National Ambient Air Quality Standards (NAAQS): National standards established under the Clean Air Act by the Environmental Protection Agency (EPA). These standards prescribe levels of pollution in the outdoor air which may not be exceeded. There are two levels of NAAQS: primary, set at a level to protect the public health from air pollution damage, and secondary, set at a level to protect public welfare from air pollution damage.

Glossary

National Environmental Policy Act (NEPA) of 1969: A law enacted on January 1, 1970 that established a national policy to maintain conditions under which man and nature can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations of Americans. It established the Council on Environmental Quality for coordinating environmental matters at the federal level and to serve as the advisor to the President on such matters. The law made all federal actions and proposals that could have significant impact on the environment subject to review by federal, state and local environmental authorities.

National Historic Preservation Act (NHPA): The primary federal law providing for the protection and preservation of cultural resources. NHPA established the National Register of Historic Places, the Advisory Council on Historic Preservation, and the State Historic Preservation Officers.

National Register of Historic Places (NRHP): A list of buildings, sites, districts, structures and objects significant in American history, architecture, archeology, and culture maintained by the Secretary of the Interior. Expanded as authorized by Section 2(b) of the Historic Sites Act of 1935 (16 U.S.C. 462) and Section 101(a) (1) (A) of the National Historic Preservation Act.

Native (Indigenous) Species: A species of plant or animal that naturally occurs in an area and that was not introduced by humans.

Nonpoint Pollution: Pollution from scattered sources, as opposed to pollution from one location, e.g. a manufacturing plant.

Non-Use: AUMs that are normally available for use, but are not grazed through either the permittee's or BLM's request. Nonuse is applied for and authorized on an annual basis.

Nutrient Cycle: Circulation of chemical elements, such as carbon or nitrogen, in specific pathways from the non-living (abiotic) parts of the environment into the organic substances (plants and animals), and then back again into abiotic forms.

O

Objective: A measurable description of a desired future condition that specifies what is to be accomplished, location, and timeframe.

Obligate: Restricted to a particular set of environmental conditions. (opposed to facultative).

Off-Highway Vehicle (OHV): Any motorized vehicle designed for cross-country travel over any type of natural terrain and not restricted to the use of roads.

Off-Highway Vehicle Designations: BLM designations used in this document are as follows:

Open Areas: Designated areas and trails where OHVs may operate without restrictions.

Limited Areas: Designated areas and trails where the use of OHVs is subject to restrictions such as limits on the number or types of vehicles allowed or the dates and times of use, limit of use to existing roads and trails, or limit of use to designated roads and trails.

Closed Areas: Areas, roads and trails where the use of OHVs are permanently or temporarily prohibited. Emergency use of vehicles is allowed.

Overgrazing: Consumption of vegetation by herbivores beyond the endurance of a plant to survive.

P

Passive research: Research that relies on observation and largely non-disturbing methods (see Research).

Pedestaling: The occurrence of plants or rocks on pedestals means that the soil has eroded away from the base of the plant or rock and it has become slightly elevated above the eroded surface of the soil. The height of the pedestals and the degree of root exposure can serve as indicators of the degree of soil loss.

Perennial Plant Species: A plant that has a life cycle of three years or more.

Perennial Stream: A stream that flows throughout the year for many years.

Permeability Rate (Soil): The rate at which gases, liquids (water), or plant roots penetrate or pass through a bulk mass of soil or a layer of soil.

Permitted Use: The number of animal unit months (AUMs) available to be grazed (authorized on a grazing permit or lease).

Permittee: A person or company permitted to graze livestock on public land.

Petroglyph: A form of rock art manufactured by incising, scratching or pecking designs into rock surfaces.

Phenology: The study of the time of appearance of characteristic periodic events in the life cycles of organisms in nature and how these events are influenced by environmental factors.

Glossary

Pictograph: A form of rock art created by applying mineral based or organic paint to rock surfaces.

Plant Community: Assemblage of plant populations in a defined area or physical habitat; an aggregation of plants similar in species composition and structure, occupying similar habitats over the landscape (see vegetation type).

Playa: The usually dry and very level lake-plain that occupies the lowest part of a closed depression.

Predator: An animal that preys on one or more other animals.

Prescribed Fire (Prescribed Burn): A controlled wildland fire ignited by humans under specified conditions, to accomplish specific, planned resource objectives. This practice is also known as "controlled burning".

Properly Functioning Condition (Riparian-Wetlands): Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid in floodplain development; improve floodwater retention and groundwater recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is influenced by land form, soil, water, and vegetation.

Properly Functioning Condition (Uplands): Uplands are functioning properly when the existing vegetation and ground cover maintain soil conditions capable of sustaining natural biotic communities. The functioning condition of uplands is influenced by land form, soil, water, and vegetation.

Proposed Species: A species of plant or animal formally proposed by the U.S. Fish and Wildlife Service (USFWS) to be listed as threatened or endangered under the Endangered Species Act.

Public Land: Any land and interest in land owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except: 1) lands located on the Outer Continental Shelf, 2) lands held for the benefit of Indians, Aleuts, and Eskimos, and 3) lands in which the United States retains the minerals, but the surface is private.

R

Range Condition: The present state of the plant community on a range site in relation to the potential natural plant community for that site.

Range Improvement: A structure, development or treatment used to rehabilitate, protect or improve the public lands to advance range betterment.

Range Management: The science and art of optimizing the returns from rangelands in those combinations most desired by and suitable to society through the manipulation of range ecosystems.

Range Site: Rangeland that differs in its ability to produce a characteristic natural plant community. A range site is the product of all the environmental factors responsible for its development. It is capable of supporting a native plant community typified by an association of species that differ from other range sites in the kind or proportion of species or in total production.

Rangeland Condition (Ecological): The present state of the vegetation on a range site in relation to the climax (natural potential) plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the climax plant community for that site. Rangeland condition is basically an ecological rating of the plant community. Four classes are used to express the degree to which the composition of the present plant community reflects that of the climax:

<u>Condition Class</u>	<u>Range Site</u>
Excellent	76-100
Good	51-75
Fair	26-50
Poor	0-25.

Rangeland Condition Trend: The direction of change in Rangeland condition.

Rangewide Plan: A document entitled *Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan* and signed by the BLM Director in 1988. It established overall policy for management of desert tortoise habitat on BLM lands in Arizona, California, Nevada, and Utah.

Raptor: Any predatory bird (such as falcon, hawk, eagle, or owl) that has feet with sharp talons or claws adapted for seizing prey and a hooked beak for shearing flesh.

Recovery: Improvement in the status of a listed species to the point at which listing is no longer appropriate under the criteria set forth in Section 4 of the Endangered Species Act. Also, the process by which species and/or their ecosystems are restored so the species is self-sustaining.

Glossary

Recovery criteria: objective, measurable criteria which, when met, will lead to a species being removed from the list threatened and endangered species (i.e., delisting). Recovery criteria are a required element of a recovery plan as specified in Section 4(f)(1) of the Endangered Species Act.

Recovery Unit: The general geographic in which recovery effort needs to be directed to provide for the recovery of a species.

Recreation Opportunity Spectrum: A continuum used to characterize recreation opportunities in terms of, setting, activity and experience opportunities. Six classes are included: Primitive, Semi-primitive Non-motorized, Semi-primitive Motorized, Roaded natural, Rural and Modern urban.

Recreation Visitor Day: An aggregation of 12 visitor hours. A visitor hour is the presence of one or more persons on land and water for outdoor recreation for periods totaling 60 minutes; one person for one hour, two persons for one-half hour and so on.

Recruitment: Addition to a plant or animal population from all sources, including reproduction, immigration, and stocking.

Research: Systematic inquiry into a subject in order to discover new information or revise facts and theories. Research follows a scientific method and must be repeatable (see Passive Research and Manipulative Research).

Resource Advisory Council (RAC): A group established pursuant to 43 CFR 1780 and other authorities to advise BLM on resource management issues. In the California Desert District, the California Desert District Advisory Council serves as the RAC.

Right-of-Way (ROW): An easement or permit, which authorizes public land to be used for a specified purpose that generally requires a long narrow strip of land. Examples are roads, powerlines, pipelines, etc.

Riparian (Zone): The transition area between an aquatic ecosystem and an adjacent terrestrial ecosystem identified by soil characteristics or distinctive vegetation communities that require free or unbound water.

Rock Art (Petroglyph or Pictograph): An Archaic to modern cultural site type consisting of incised or painted figures such as people, animals, plants or abstracts on a rock surface.

Rock Shelter: A cultural site representative of all periods consisting of an area protected by an overhanging cliff. Often associated with the same materials as a campsite or rock art.

Glossary

Runoff: A general term used to describe the portion of precipitation on the land that ultimately reaches streams; may include channel and non-channel flow.

S

Scale: The degree of resolution used in observing and measuring ecosystem processes, structures and changes over space and time.

Season of Use: The time during which livestock grazing is permitted on a given area, as specified in the grazing permit and/or terms and conditions.

Section: One square mile or 640 acres.

Seeps: Groundwater discharge areas. In general, seeps have less water flow than a spring.

Seral Stage (State): Pertaining to the successional stages of biotic communities. One of a series of biotic communities that follow one another in time on any given ecological site (See Succession).

Severe Use: Utilization in excess of 80%.

Sex Ratio: The ratio existing between the number of male and female animals within a given herd, band or population. It is sometimes expressed as the number of males per 100 females.

Sheet Erosion: The removal of a fairly uniform layer of soil or materials from the land surface by rainfall or runoff water.

Short-Term Impact: Ten years or less; approximately the year 2009.

Sign (Tortoise): Those elements indicating the presence of desert tortoise in an area, including live tortoise, dead tortoise or shell fragments, burrow, and scat.

Slight use: Indicates that 0 to 20% of the current years forage production has been eaten or destroyed by grazing animals.

Soils: (a) The unconsolidated mineral material on the immediate surface of the earth that serves as the natural medium for the growth of land plants. (b) The unconsolidated mineral matter of the surface of the earth that has been influenced by genetic and environmental factors including parent material, climate, topography, all acting over a period of time and producing soil that differs from the parent material in physical, chemical, biological and morphological properties and characteristics.

Glossary

Soil Compaction: A decrease in the volume of soil as a result of compression stress.

Soil (Ground) Cover: The percentage of material, other than bare ground, covering the land surface. Soil cover may include live vegetation, standing dead vegetation, plant litter, cobble, gravel, stones, and bedrock.

Soil Productivity: Capacity of a soil to produce biomass through plant growth.

Soil Series: A group of soils having genetic horizons (layers) that, except for texture of the surface layer, have similar characteristics and arrangement in the profile.

Special Area Designations: A title conferred on a specified area through a variety of mechanisms, especially the land use planning process, which identifies the area as being in need of special management attention. Examples of special area designations include Wilderness Areas, Special Recreation Management Areas, Areas of Critical Environmental Concern and Wildlife Habitat Management Areas.

Special Recreation Management Area (SRMA): A special area designation where significant public recreation issues or management concerns occur. Special or more intensive types of management are typically needed. Detailed recreation planning is required and greater managerial investment (e.g. facilities, supervision, etc.) is likely.

Special Status Species: Plant or animal species listed as endangered, threatened, candidate, or sensitive by Federal or State governments.

Species: A fundamental category of plant or animal classification.

Species Richness: Number of species, either in total or by some grouping scheme.

Standards for Rangeland Health: A description of conditions needed to sustain public land health; relates to all uses of the public lands.

State Land: Lands administered by any one of several State agencies.

Strip-Transect: A survey line of fixed width (usually 0-30 meters) in which a resource is measured (e.g., tortoise sign, plants).

Succession: The constantly occurring process of community change; the sequence of communities that replace one another in a given area over time; e.g. progressive development of vegetation after a fire (bare ground) towards its highest ecological expression, the climax community (old growth conifer). Theoretically, it is reasonably directional and, therefore, predictable.

Suspended Non-Use: AUMs withdrawn from authorized use; may potentially be re-authorized for use if range conditions improve.

Glossary

Sustainability: The ability to maintain diversity, productivity, resilience to stress, health, renewability, and yields of desired values, resource uses, products, or services over time in an ecosystem while maintaining its integrity.

Sustained Yield: The achievement and maintenance in perpetuity of a high level of annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use.

T

Take: As defined in Section 3 of the Endangered Species Act, to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct relative to a listed species. Take of a listed species is prohibited by Section 9 of the Endangered Species Act except under permit from USFWS.

Terms and Conditions: Mandatory measures contained in a biological opinion from USFWS pursuant to Section 7 of the Endangered Species Act or in a habitat conservation plan signed by USFWS pursuant to Section 10. The measures are mandatory for the authorization of incidental take.

Territory: The defended part of an animal's range.

Threatened Species: 1) Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range, and 2) as further defined by the Endangered Species Act of 1973.

Transition Period: The period of time between completion and adoption of these standards and guidelines and their being placed in operational effect at the individual grazing permit terms and conditions level.

Trap: A device or site used to capture and perhaps temporarily hold an animal(s).

U

Unit Resource Analysis (URA): (1) A comprehensive display of inventory and analysis of resources data and an analysis of the current use, production, condition, trend, and use potential and opportunity within a planning unit. The term and document structure is no longer a part of current planning procedures, but may still be found in older planning documents that are still applicable.

Upland: Land at a higher elevation than the alluvial plain or low stream terrace; all lands outside the riparian-wetland and aquatic zones.

Utilization: The proportion of a year's forage production that is consumed or destroyed by grazing animals.

V

Vegetative Community Type: Refers to the species or various combinations of species which dominate or appear to dominate an area of rangeland or habitat (see plant community).

Vegetation Status: The expression of the relative degree to which the kinds, proportions, and amounts of plants in a community resemble that of the potential plant community (see early seral, mid-seral, late seral and potential plant community).

Viable populations: Populations of plants and/or animals that persist for a specified period of time across their range despite normal fluctuations in population and environmental conditions.

Viewshed: The landscape that can be directly seen under favorable atmospheric conditions from a viewpoint or along a transportation corridor.

Vigor (Plant): Pertaining to characteristics such as a mix of plants with normal growth on the basis of height, color, seed production, rhizome and stolon production, and annual biomass production.

Visual Resources: Visible features of the landscape including land, water, vegetation, and animals.

Visual Resource Management (VRM): A system for evaluating the visual resources of a given area and for determining what degree of protection, rehabilitation, or enhancement is desirable and possible.

W

Water: A natural or artificial water source or site (see Guzzler).

Wetlands: An area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wilderness Area: An area of Federal land withdrawn by act of Congress pursuant to the Wilderness Act to be protected in its natural condition for the use and enjoyment of the people of the United States, maintaining its primeval character and providing for visitor solitude.

Wilderness Characteristics: Identified by congress in the 1964 wilderness act; namely size, naturalness, outstanding opportunities for solitude or a primitive and unconfined type of recreation, and supplemental values such as geological, archeological, historical, ecological, scenic, or other features. It is required that the area possess at least 5,000 acres or more of contiguous or be of a size to make practical its preservation and use in an unimpaired condition; be substantially natural or generally appear to have been primarily by the forces of nature, with the imprint of man being substantially unnoticeable; and have either outstanding opportunities for solitude or a primitive and unconfined type of recreation.

Wild Free-Roaming Horse or Burro: Any and all unbranded and unclaimed horses, burros and their progeny that have used public lands on or after December 15, 1971, or that do use these lands as all or part of their habitat.

Wild Horse (and Burro) Habitat Management Area: An area of the public lands which provides habitat for one or more wild horse herds.

Wildlife: All living vertebrate and invertebrate fauna that exists or potentially exists in an area.

Wildlife Habitat Management Area (WHMA): An administrative designation (BLM Manual 6780) established through the 43 CFR 1610 land use planning process. WHMA are designed to identify areas requiring special management attention for the protection of important wildlife resources. Establishment of a WHMA may include a more intensive, active management program. In practice, both ACECs and WHMAs can achieve the same resource condition objectives. However, ACEC designation connotes a higher level of political sensitivity and public awareness.

Withdrawal: The act of withholding an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of Federal land, other than property governed by the Federal Property and Administrative Services Act, from one department, bureau, or agency to another department, bureau, or agency.

Woody Riparian Species: Plant species consisting of wood such as trees, shrubs, or bushes found in riparian-wetland areas.

Acronyms and Abbreviations

A

ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
ADC	Animal Damage Control
AIRFA	<i>American Indian Religious Freedom Act of 1978</i>
AML	Appropriate Management Level
AMP	Allotment Management Plan
APE	Area of Potential Effect
AQCR	Air Quality Control Regions
AQS	Air Quality Standard
ATV	All Terrain Vehicle
AUM	Animal Unit Month

B

BLM	Bureau of Land Management
BMP	Best Management Practices
BO	Biological Opinion
BOR	Bureau of Reclamation

C

C&MUA	Classification and Multiple Use Act
CDCA	California Desert Conservation Area
CDFG	California Department of Fish and Game
CDPA	<i>California Desert Protection Act of 1994</i>
CEQ	Council on Environmental Quality
CEQA	<i>California Environmental Quality Act</i>
CESA	<i>California Endangered Species Act</i>
CFR	Code of Federal Regulations
CMAGR	Chocolate Mountain Aerial Gunnery Range
CMP	Coordinated Management Plan
CNDDb	California Natural Diversity Data Base
CNPS	California Native Plant Society
CMP	Coordinated Resource Management and Planning
CVAG	Coachella Valley Association of Governments

Glossary

D

DAG	Desert Access Guide
DEIS	Draft Environmental Impact Statement
DLE	Desert Land Entry
DOD	Department of Defense
DOI	Department of the Interior
DRP	Draft Resource Plan
DTRP	<i>Desert Tortoise Resource Plan June 1994</i>
DWMA	Desert Wildlife Management Area

E

EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	<i>Endangered Species Act of 1973</i>

F

FEIS	Final Environmental Impact Statement
FESA	<i>Federal Endangered Species Act</i>
FLPMA	<i>Federal Land Policy and Management Act</i>
FMAP	Fire Management Activity Plan
FY	Fiscal Year

G

GEM	Geology, Energy, Minerals (Survey)
GIS	Geographic Information Systems
GMP	General Management Plan

H

HAZMAT	Hazardous Material
HCP	Habitat Conservation Plan
HMA	Habitat/Herd Management Area
HMAP	Herd Management Area Plan
HMP	Habitat Management Plan

Glossary

I

IBLA Interior Board of Land Appeals

J

JTNP Joshua Tree National Park

L

LWCF Land and Water Conservation Fund

M

MFP Management Framework Plan

MOA Memorandum of Agreement

MOG Management Oversight Group

MOU Memorandum of Understanding

MSA Management Situation Analysis

MSCP Multi-species Conservation Plan

MUC Multiple-Use Classification

MWD Metropolitan Water District of Southern California

N

NAAQS National Ambient Air Quality Standards

NECO Northern and Eastern Colorado Desert Coordinated Management Plan

NEMO Northern and Eastern Mojave Desert Coordinated Management Plan

NEPA *National Environmental Policy Act of 1969*

NHPA *National Historic Preservation Act of 1966*

NNL National Natural Landmark

NOI Notice of Intent

NPS National Park Service

NRHP National Register of Historic Places

NWR National Wildlife Refuge

O

OHV Off-Highway Vehicle

ONA Outstanding Natural Areas

Glossary

P

PFC	Proper Functioning Condition
PL	Public Law

R

RAMP	Recreation Activity/Area Management Plan
R&PP	Recreation and Public Purpose (Act)
RNA	Research Natural Area
RPS	Rangeland Program Summary
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
ROW	Right-of-Way
RU	Recovery Units

S

SCS	Soils Conservation Service
S&G	Standards and Guidelines
SHPO	State Historic Preservation Office
SLC	State Lands Commission
SMARA	<i>Surface Mining and Reclamation Act of 1976</i>

T

T&E	Threatened and Endangered (Species)
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U

UPA	Unusual Plant Assemblages
URTD	Upper Respiratory Tract Disease.
US	United States
USC	United States Code
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Service
USMC	United States Marine Corps

Glossary

V

VRM Visual Resource Management

W

WH&B Wild Horses and Burros

WHMA Wildlife-Habitat Management Area

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Appendix A: Notices and EIS Distribution List

Notice of Intent, June 28, 2000

[Federal Register: June 28, 2000 (Volume 65, Number 125)]

[Notices]

[Page 39920-39922]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr28jn00-92]

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Preparation of an Environmental Impact Statement/ Environmental Impact Report for Federal and State Actions Associated With the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Communities Conservation Plan

AGENCY: Fish and Wildlife Service, Interior (Lead Agency).

COOPERATING AGENCIES: Bureau of Land Management, Interior; National Park Service, Interior; Forest Service, Agriculture; California Resources Agency; California Department of Fish and Game; California Department of Parks and Recreation; and Coachella Valley Association of Governments.

ACTION: Notice of intent; notice of public meeting.

SUMMARY: The Fish and Wildlife Service and cooperating agencies are gathering information necessary for the preparation of an Environmental Impact Statement/Environmental Impact Report (Impact Statement/Report). This Impact Statement/Report will consider the actions of Federal, State, and local agencies, as well as private interests, associated with implementation of the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Communities Conservation Plan(Multispecies Plan) and the issuance of incidental take permits pursuant to section 10(a)(1)(B) of the Federal Endangered Species Act of 1973, as amended, and section 2081 of the California Endangered Species Act. The Impact Statement/Report also will consider the Bureau of Land Management's proposed amendment of the California Desert Conservation Plan to conform with the Multispecies Plan. In addition, the Impact Statement/ Report will consider any other actions by other Federal or State agencies that are necessary or appropriate to implement the Multispecies Plan.

We encourage interested persons to attend public meetings to identify and discuss the scope of issues and alternatives that should be addressed in the Multispecies Plan and in the Impact Statement/Report. We provide this notice pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (40 CFR 1501.7 and 1508.22).

DATES: We must receive your written comments by July 28, 2000. See SUPPLEMENTARY INFORMATION section for meeting dates and locations.

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ADDRESSES: Send comments regarding the scope of the Impact Statement/Report as it relates to the proposed Multispecies Plan to the Field Supervisor, Fish and Wildlife Service, 2730 Loker Avenue West, Carlsbad, California 92008; facsimile 760/431-9624. Send comments regarding the scope of the Impact Statement/Report as it relates to the proposed amendment of the Desert Conservation Plan to the Field Manager, Bureau of Land Management, Palm Springs-South Coast Field Office, P.O. Box 1260, North Palm Springs, California 92258-1260; facsimile 760/251-4899.

FOR FURTHER INFORMATION CONTACT: Mr. Pete Sorensen, Supervisory Fish and Wildlife Biologist, Carlsbad Fish and Wildlife Office, Carlsbad, California; telephone 760/431-9440; or Ms. Elena Misquez, Planning and Environmental Coordinator, Bureau of Land Management, Palm Springs-South Coast Field Office, North Palm Springs, California; telephone 760/251-4810.

SUPPLEMENTARY INFORMATION: All comments that we receive will become part of the administrative record and may be released to the public. You may view these comments during normal business hours (8 a.m. to 5 p.m., Monday through Friday) at the above offices (see ADDRESSES). Please call for an appointment.

In addition, you may obtain specific information regarding the location of lands proposed for conservation from Mr. Steve Nagle, Coachella Valley Association of Governments, 73-710 Fred Waring Drive, Suite 200, Palm Desert, California 92260; telephone 760/346-1127; facsimile 760/340-5949.

Meetings

We will hold public meetings as follows:

July 10, 2000, 6:30 p.m. to 8:30 p.m., City Hall Council Chambers, 68-700 Avenida Lalo Guerrero, Cathedral City, California.

July 11, 2000, 6:30 p.m. to 8:30 p.m., City Hall Council Chambers, 68-700 Avenida Lalo Guerrero, Cathedral City, California.

Appendix A - Notices and EIS Distribution List

July 12, 2000, 6:30 p.m. to 8:30 p.m., City Hall Council Chambers, 78-495 Calle Tampico, La Quinta, California.

The meetings on July 10 and 12 broadly focus on the scope and content of the Impact Statement/Report as it relates to the proposed Multispecies Plan and to the proposed amendment of the California Desert Conservation Plan. The meeting on July 11 specifically focuses on the trail component of these plans.

Background

Section 9 of the Federal Endangered Species Act and regulations prohibit the "take" of animal species listed as endangered or threatened. That is, no one may harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect listed animal species, or attempt to engage in such conduct (16 USC 1538). "Harm" is defined by regulation to include significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). Under certain circumstances, the Fish and Wildlife Service may issue permits to authorize "incidental" take of listed animal species (defined by the Act as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity). Regulations governing permits for federally-listed threatened and endangered species, respectively, are at 50 CFR 17.32 and 50 CFR 17.22. The California Department of Fish and Game has similar provisions for incidental take of species listed under the California Endangered Species Act.

The Coachella Valley Association of Governments and its member jurisdictions (Riverside County and 9 municipalities) intend to apply for incidental take permits from the Fish and Wildlife Service and the California Department of Fish and Game. As part of the application process, the Association is developing the Multispecies Plan for an anticipated 31 target species and 24 habitat types currently within their jurisdiction. We anticipate that the permit applications for incidental take will include 20 unlisted species and the following 11 federally-listed species: Peninsular bighorn sheep (*Ovis canadensis*), desert tortoise (*Gopherus agassizii*), Southwest arroyo toad (*Bufo microscaphus californicus*), desert slender salamander (*Batrachoseps aridus*), Coachella Valley fringe-toed lizard (*Uma inornata*), desert pupfish (*Cyprinodon macularius*), Yuma clapper rail (*Rallus longirostris yumanensis*), least Bell's vireo (*Vireo bellii pusillus*), Southwestern willow flycatcher (*Empidonax trailii extimus*), Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), and triple-ribbed milk-vetch (*Astragalus tricarinatus*).

The take prohibitions of the Federal Endangered Species Act do not apply to listed plants on private land unless their destruction on private land is in violation of State law. Nevertheless, we expect that

the Coachella Valley Council of Governments and its member jurisdictions will consider plants in the Multispecies Plan and request permits for them to the extent that State law applies.

The 1,206,578-acre (1,885 square-mile) planning area for the Multispecies Plan is located in the central portion of Riverside County, California. It generally is defined by the ridgelines of the San Jacinto, Santa Rosa, and Little San Bernardino Mountains, extending to the Imperial and San Diego County lines from the Cabazon/San Gorgonio Pass area in the northwest to, and including, portions of the Salton Sea in the southeast.

Approximately 45 percent of the planning area consists of lands under the ownership and management of the Bureau of Land Management, while private lands total about 43 percent. The remaining 12 percent includes native American, State, and other public and quasi-public lands.

The Multispecies Plan is being designed to assure the conservation of adequate habitat and ecological processes for the protection and long-term viability of populations of the target species that are either listed as threatened or endangered, are proposed for listing, or are believed to have a high probability of being proposed for listing in the future if they are not protected by the Multispecies Plan. A critical consideration of the Plan is allowing key ecological processes, such as sand movement by wind and water, to support a shifting network of sand dunes essential to the well being of the target species. Plan developers are considering conservation of core habitat areas and linkages primarily through protection and management of existing public and quasi-public lands, and through acquisition of additional lands by cooperating Federal, State, and local governments from willing sellers throughout the planning area. The linkage areas connecting core habitat areas are intended to assure the long-term protection of movement or migratory corridors through which wildlife populations can mix and perpetuate a healthy gene pool.

Project Alternatives

A range and mix of public and private lands are under consideration and will be analyzed as project alternatives in the Impact Statement/Report, including a "No Project" alternative that assesses the efficacy of species and habitat protections, as well as associated impacts. Each alternative is summarized below.

No Project Alternative: Under this alternative, an area-wide Multispecies

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Plan would not be adopted. Hence Federal and State incidental take permits would be issued incrementally for individual projects. Assemblage of an effective preserve system would be unlikely. Over

time, additional species would likely become listed, further complicating continued urban development. The land development permit process would continue to be lengthy, costly, and uncertain.

Existing Conservation Lands Alternative: Only existing reserves and other public and private conservation lands with habitat for target species would be included in this alternative. The type, amount and location of lands conserved under this alternative would be insufficient to obtain incidental take permit coverage for most, if not all, of the target species. This alternative would not streamline development permit processing.

Core Habitat, Ecological Processes and Linkages Alternative: Developed by the Scientific Advisory Committee for the Multispecies Plan, this alternative focuses on protecting core habitat areas of sufficient size and long-term viability for the protection of target species and natural communities. This alternative also includes protection of essential ecological processes and wildlife movement corridors.

Expanded Core Habitat, Ecological Processes and Linkages Alternative: Based upon the previous alternative, this enhanced conservation alternative would include additional habitat, ecological processes and wildlife corridors to further ensure functionality.

Avoid or Minimize Incidental Take Alternative: Under this alternative, most remaining viable habitat for target species, and associated ecological process and wildlife corridor lands in the planning area would be incorporated into the preserve system. Conservation would focus on all large habitat blocks within the composite range of target species and would allow development of all isolated habitat fragments. Little economic incentive for private land-owner participation would be available and immediate land acquisition would likely be required to address the resulting take of private lands.

Alternative Funding and Implementation Mechanisms

Estimates of the costs associated with the dedication, acquisition, and management of lands to be protected in perpetuity under the Multispecies Plan have not yet been completed. Substantial Federal and State assets are currently proposed for inclusion in the Plan, as are county, local, and private lands. Several alternative approaches are under consideration.

Tool Box Approach: This implementation mechanism may take the form of zoning overlays, General Plan policies, ordinances, development fees, and mitigation ratios. Tools that may be used include: (a) Conservation easements, (b) density transfer and cluster development, (c) conservation banks, (d) donation of lands for tax benefits, and (e) inclusion of land in a habitat transaction system with pre-assigned habitat values or credits.

Immediate Purchase of All At-Risk Lands: This alternative

represents the optimum implementation mechanism but would require the immediate or short-term availability of substantial funding for purchase of land and conservation easements. Potential funding sources may include biological resource impact-fees assessed to future development, State and Federal grants, government loan guarantees, landfill tipping fees, and local sales tax.

Combined Public Funds/Mitigation Fee for Land Acquisition and Management: This approach includes the combined use of State and Federal grants, as well as the payment of a standardized impact mitigation fees for development of lands outside conservation areas. Revenues from existing or new tax streams, bond issues, landfill tipping fees, and other sources are also being explored. Continued private contributions are expected to be available for habitat acquisition.

In addition, the Forest Service, pursuant to the National Forest Management Act of 1976, and the Bureau of Land Management, pursuant to the Federal Land Policy and Management Act of 1976, have authority to acquire, excess, exchange and transfer Federal lands, and will be the agencies primarily responsible for furthering the Federal realty actions. The State of California also acquires lands for conservation purposes through the Wildlife Conservation Board, the Department of Parks and Recreation, and the Coachella Valley Mountains Conservancy.

Proposed Amendment of the California Desert Conservation Plan

The Bureau of Land Management is participating as a responsible agency in the planning process. To ensure that its land use decisions are in conformance with the Multispecies Plan, the Bureau proposes to amend the California Desert Conservation Area Plan in compliance with the National Environmental Policy Act, the Federal Land Policy Management Act of 1976, and the Code of Federal Regulations (40 CFR part 1500 and 43 CFR part 1610).

The Bureau will use the Impact Statement/Report prepared for the Multispecies Plan as the Environmental Impact Statement for its proposed amendment to the Desert Conservation Plan. The Bureau will prepare a Record of Decision separate from that of the Fish and Wildlife Service. The proposed plan amendment will address changes in Bureau land use classifications, identify public lands for exchange to augment the multi-species reserve system, and designate new Areas of Critical Environmental Concern. The proposed plan amendment will take into consideration biological, botanical, cultural, wilderness, mineral and other natural resources, as well as use of the public lands for recreation, mineral extraction, utility corridors and other uses. Nothing in this proposed plan amendment shall have the effect of terminating any validly issued rights-of-way or customary operation, maintenance, repair, and replacement activities in such rights-of-ways in accordance with Sections 509(a) and 701(a) of the Federal Land Policy Management Act of 1976.

Appendix A - Notices and EIS Distribution List

Dated: June 21, 2000.

Elizabeth H. Stevens,

Deputy Manager, California/Nevada Operations Office, Region 1,
Sacramento, California.

[FR Doc. 00-16383 Filed 6-27-00; 8:45 am]

BILLING CODE 4310-55-P

Notice of Intent Addendum, April 12, 2002

[Federal Register: April 12, 2002 (Volume 67, Number 71)]

[Notices]

[Page 18022-18023]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr12ap02-86]

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DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[CA-660-02-1610-DO]

Proposed California Desert Conservation Area Plan Amendment Palm
Springs-South Coast Field Office, California

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of intent.

SUMMARY: This notice is an addendum to the notice of intent published June 28, 2000 (pages 39920-39922) for the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and California Desert Conservation Area (CDCA) Plan Amendment. In compliance with the National Environmental Policy Act of 1969 (NEPA), the Federal Land Policy Management Act of 1976 (FLPMA) and the Code of Federal Regulations (40 CFR 1501.7, 43 CFR 1610.2), notice is hereby given that the Bureau of Land Management (BLM), in collaboration with the Coachella Valley Association of Governments (CVAG), is preparing a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the CVMSHCP and CDCA Plan Amendment. The CDCA Plan Amendment planning boundary extends beyond the CVMSHCP planning boundary (described below), incorporating BLM-managed public lands within the Santa Rosa Wilderness and public lands surrounding Coyote Canyon in Riverside County, and those portions of the San Geronio Wilderness and Big Morongo Canyon Area of Critical Environmental Concern (ACEC) within San Bernardino County. The CDCA Plan Amendment does not include lands within BLM's South Coast planning area.

The BLM invites the public to participate in this planning and NEPA process. Citizens are requested to help identify significant issues or concerns to be addressed in the draft CDCA Plan amendment and to provide input on BLM's proposed planning criteria described below under SUPPLEMENTARY INFORMATION.

DATES: All comments received shall be taken into consideration prior to issuance of the Record of Decision. Please submit any scoping or proposed planning criteria comments in writing, 30-days from the date of this notice to ensure inclusion in the draft plan/EIS.

ADDRESSES: Written comments may be forwarded to the following address: Mr. James G. Kenna, Field Manager, Bureau of Land Management, Palm Springs-South Coast Field Office, 690 W. Garnet Ave., PO Box 581260, North Palm Springs, CA 92258-1260. Citizens submitting written comments will automatically be included in the mailing list to receive an electronic copy of the Draft CVMSHPC/CDCA Plan Amendment and joint EIS/EIR.

FOR FURTHER INFORMATION CONTACT: Ms. Elena Misquez, Planning and Environmental Coordinator, Bureau of Land Management, Palm Springs-South Coast Field Office, telephone (760) 251-4800.

SUPPLEMENTARY INFORMATION: The CVMSHCP planning boundary encompasses 1,205,780 acres located in the central portion of Riverside County, California. The CVMSHCP planning boundary generally is defined by the ridgelines of the San Jacinto, Santa Rosa and Little San Bernardino Mountains, extending to the Imperial and San Diego County lines from the Cabazon/San Gorgonio Pass area in the northwest to and including, portions of the Salton Sea to the southeast. Approximately 24 percent of the planning area consists of BLM-managed public lands, while private lands total about 43 percent. The remaining 33 percent includes Native American, State and other public and quasi-public lands.

The CDCA Plan Amendment planning boundary extends beyond the CVMSHCP planning boundary, incorporating BLM-managed public lands within the CDCA boundary in Riverside County in the vicinity of Coyote Canyon and the Santa Rosa Wilderness (Township 8 South, Ranges 4 and 5 East), and those portions of the San Gorgonio Wilderness and Big Morongo Canyon ACEC within San Bernardino County (Townships 1 North and 1 South, Ranges 3, 4 and 5 East.).

Proposals and alternatives (including the "no action" alternative) to be addressed include opportunities for new off-highway vehicle open areas, wind energy projects, saleable minerals extraction and communication sites, establishment of air quality and fire management guidelines for the public lands, identification of changes in land use classification, new ACEC designations and public lands available for disposal, a re-evaluation of the wild horse and burro program in Palm Canyon and grazing in the Whitewater Canyon allotment, in addition to the multiple species conservation program being considered for the Coachella Valley. To ensure the aforementioned proposals are in conformance with the CDCA Plan, an amendment to the CDCA Plan is required.

The following types of issues are anticipated to be addressed

through this planning process: (1) Recovery of threatened and endangered species and the avoidance of future listings, (2) identifying compatible multiple uses within and outside the CVMSHCP reserve areas, (3) improving quality of life in the Coachella Valley by implementing practices which promote a healthy environment and by providing safe and enjoyable recreational opportunities, (4) designate routes of travel for motorized vehicle access, (5) address management of grazing and wild horse and burros in the mountains surrounding the Coachella Valley.

In compliance with 43 CFR 1610.4-2, the BLM requests public input on the following proposed planning criteria, which will guide development and establish "sideboards" for preparation of the CDCA Plan Amendment. Please submit any comments in writing to the BLM address listed above no later than 30 days from the date of this Federal Register notice. Development of the CDCA Plan Amendment shall be conducted:

In compliance with all applicable laws, regulations and policies which address such pertinent topics as BLM's multiple use mandate, valid existing rights, the Bureau's energy policy, ACECs, threatened and endangered species, route designation, land health, habitat and range management, cultural resources, Native American consultation, water quality, air quality, wilderness and other topics.

In close coordination with the local jurisdictions, State and other Federal agencies to ensure consistency with the CVMSHCP. BLM shall also consider updating its ACEC and Wildlife Habitat Management Plans to ensure consistency with the CVMSHCP.

To the extent practicable, without revising proposed decisions made through the Northern and Eastern Colorado Desert Plan.

Considering relevant plans such as Recovery Plans prepared by the US Fish and Wildlife Service, the Agua Caliente Band of Cahuilla Indians Land Management Plan, and other plans.

Such that nothing in the proposed plan amendment shall have the effect of terminating any validly issued rights-of-way or customary operation, maintenance, repair, and replacement activities in such rights-of-ways in accordance with sections 509(a) and 701(a) of FLPMA.

Selection of the preferred alternative will be based on the following proposed planning criteria:

Promote long-term recovery and viability of native flora and fauna.

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Do not unduly burden Bureau resources and funding capability, including maintenance activities.

Consider the manageability and implementability of approved actions relative to the urban/wildland interface and the

public/private interface.

Provide for multiple-use opportunities on the public lands throughout the Coachella Valley landscape, including recreation and energy-related projects.

Seek to achieve common goals set forth in the CVMSHCP, selection of the preferred alternative shall be conducted in close coordination with the local jurisdictions to promote land management consistency, effectiveness and cost efficiency across jurisdictional boundaries.

An interdisciplinary team of BLM staff and contract specialists has been assembled to work on the plan amendment, representing the following disciplines: Wind energy, communications, socio-economics, minerals management, lands and realty, range management, recreation, wildlife, botany, cultural resources, air, water, soils, wilderness, wild and scenic rivers, planning, NEPA and other disciplines.

Citizens who wish to be actively involved with development of the CVMSHCP and CDCA Plan Amendment are encouraged to attend the Project Advisory Group (PAG) meetings held generally every fourth Thursday of the month starting at 9 a.m. in the CVAG conference room, 73-710 Fred Waring Drive, Palm Desert, CA 92260. Please contact the CVAG office at (760) 346-1127 for specific meeting dates.

Dated: February 7, 2002.

James G. Kenna,

Field Manager.

[FR Doc. 02-8876 Filed 4-11-02; 8:45 am]

BILLING CODE 4310-40-P

EIS Distribution List

A news release announcing the availability of the draft plans and draft EIS with instructions of how to obtain a copy (electronic or paper) was mailed to over 600 individuals, private interest groups and governmental agencies. This document is also available for public viewing at the following internet site: www.ca.blm.gov/palmsprings/. The following is a list of representatives and agencies who were directly mailed copies of the Draft EIS.

Federal

Congresswoman Mary Bono
Congressman Jerry Lewis
U.S. Environmental Protection Agency, Washington D.C.
U.S. Environmental Protection Agency, San Francisco
U.S. Fish and Wildlife Service, Carlsbad Field Office
U.S. Fish and Wildlife Service, Coachella Valley Refuge
U.S. Forest Service - San Bernardino National Forest
U.S. Forest Service - San Jacinto Ranger District
U.S. Bureau of Reclamation - Yuma Field Office
National Park Service - Joshua Tree National Park
Secretary, U.S. Department of Interior
Director, Bureau of Land Management

State of California

Office of the Governor
State Senator Jim Battin
Assemblyman David Kelley
South Coast Air Quality Management District
California Department of Fish and Game, Long Beach
California Department of Parks and Recreation
University of California, Riverside - Deep Canyon Reserve
University of California, Riverside - Conservation Biology
Winter Park Authority
Wildlife Conservation Board
Coachella Valley Mountains Conservancy
State Clearinghouse

Indian Tribes

Agua Caliente Band of Cahuilla Indians
Augustine Band of Mission Indians
Cabazon Band of Mission Indians
Cahuilla Band of Indians
Colorado River Indian Tribes
Fort Mojave Indian Tribe
Los Coyotes Band of Indians
Morongo Band of Mission Indians
Ramona Band of Mission Indians
Santa Rosa Band of Mission Indians
Torres-Martinez Band of Desert Cahuilla Indians
Twenty-Nine Palms Band of Mission Indians

Local Jurisdictions

Coachella Valley Association of Governments
County of Riverside
Sky Valley Community Council
Pinion Community Council
City of Idyllwild
City of Desert Hot Springs
City of Palm Springs
City of Cathedral City
City of Rancho Mirage
City of Palm Desert
City of Indian Wells
City of La Quinta
City of Indio
City of Coachella
Desert Water Agency
Coachella Valley Water District
Imperial Irrigation District
Metropolitan Water District
Center for Natural Lands Management

APPENDIX B: WILD AND SCENIC RIVERS

Section 2.1.3.1 describes river segments on BLM-managed lands within the Coachella Valley CDCA planning area that have been determined eligible for designation as Wild and Scenic Rivers in accordance with the Wild and Scenic Rivers Act of 1968 (P.L. 90-542). Section 3.1.3 describes the manner by which rivers are determined to be eligible.

Table B-1 summarizes eligibility assessments conducted for Whitewater Canyon, Mission Creek (main channel, North Fork, South Fork, and West Fork), Big Morongo Canyon, Little Morongo Canyon, and Palm Canyon. Tentative classifications of eligible river segments as *wild*, *scenic*, or *recreational* are based on the degree of access and amount of development along the river area. Designated river segments are classified and administered under one of the following, as defined in Section 2(b) of the Act:

Wild river areas: Those river, or sections of rivers, that are free of impoundments, generally inaccessible except by trail (no roads), with watersheds or shorelines essentially primitive, and having unpolluted waters.

Scenic river areas: Those rivers, or sections of rivers, that are free of impoundments, having shorelines or watersheds largely primitive and shorelines largely undeveloped, but accessible in places by roads (i.e., roads may cross but generally not parallel the river). These rivers are usually more developed than wild and less developed than recreational. This classification may or may not include scenery as an outstandingly remarkable value.

Recreational river areas: Those rivers or sections of rivers that are readily accessible by road or railroad, may have some development along the shoreline, and may have had some impoundment or diversion in the past. This classification, however, does not imply that recreation is an outstandingly remarkable value, nor that the segment must be managed or developed for recreational activities.

Table B-2 provides more detailed information pertaining to the assessments of eligibility. **Table B-3** identifies measures that protect the free-flowing characteristics and outstandingly remarkable values of the eligible river segments pending determinations of suitability or non-suitability as Wild and Scenic Rivers. Protective measures are generally applied to public lands within 1/4 mile of the eligible river segment's bank.

Table B-1
Documentation of Eligibility

Eligibility Assessment for River Segments Identified for Possible Inclusion
as Components of the National Wild and Scenic Rivers System

River Name	Free-Flowing Values		Outstandingly Remarkable Values							Potential Classification			Eligibility Determination	
	Yes	NO	a	b	c	d	e	f	g	Wild	Scenic	Recreational	Eligible	Non-Eligible
Whitewater Canyon	X				X	X	X			X		X	X	
Mission Creek (main channel)	X			X		X	X			X		X	X	
Mission Creek North fork	X		X			X				X			X	
Mission Creek South Fork	X				X	X				X			X	
Mission Creek West Fork	X					X	X					X	X	
Big Morongo Canyon		X				X	X							X
Little Morongo Canyon		X				X	X							X
Palm Canyon	X					X	X	X	X		X		X	

3/ Outstandingly Remarkable Values

- a - Scenic
- b - Recreational
- c - Geological
- d - Fish and Wildlife
- e - Historical
- f - Cultural
- g - Other Similar Values

TABLE B-2. ELIGIBILITY EVALUATION

EVALUATION OF FREE-FLOWING CHARACTER, OUTSTANDINGLY REMARKABLE VALUES, AND TENTATIVE CLASSIFICATION	
Whitewater Canyon	<p><u>Free flowing</u></p> <p><u>Outstandingly Remarkable Values</u> The BLM-managed segments of Whitewater Canyon provide habitat for federal and state listed endangered species, and state species of special concern (SSSC):</p> <ul style="list-style-type: none"> – Southwestern Willow Flycatcher (<i>Empidonax traillii extimus</i> – federal and state endangered) – Arroyo southwestern toad (<i>Bufo microscaphus californicus</i> – federal endangered) – Least Bell's Vireo (<i>Vireo bellii pusillus</i> – federal and state endangered) – Summer tanager (<i>Piranga rubra cooperi</i> – SSSC) – Yellow warbler (<i>Dendroica petechia brewsteri</i> – SSSC) – Yellow-breasted chat (<i>Icteria virens</i> – SSSC) – Gray Vireo (<i>Vireo vicinior</i> – SSSC) – Crissal thrasher (<i>Toxostoma crissali</i> – SSSC) <p>The canyon is home territory of the Wanakik lineage of Cahuilla Indians, is considered to be an important collecting and gathering area for the Cahuilla, and contains ceremonial sites and Native American sensitive areas.</p> <p><u>Tentative Classification</u> The segments of Whitewater Canyon on BLM-managed lands within the San Geronio Wilderness Additions (totaling 6.5 miles in length) are tentatively classified as "wild" in accordance with Section 2(b) of the Act. The segments outside wilderness are tentatively classified as "recreational"—they are readily accessible by the general public via the paved Whitewater Canyon Road.</p> <p><u>Ineligible Segment</u> The segment of Whitewater Canyon on BLM-managed lands between the community of Bonnie Bell and the Colorado River Aqueduct (about 0.1 mile in length) does not contain any outstandingly remarkable values, hence it is ineligible for designation as a Wild and Scenic River.</p>

<p>Mission Creek</p> <ul style="list-style-type: none"> – Main channel – North Fork – South Fork – West Fork 	<p><u>Free flowing</u></p> <p><u>Outstandingly Remarkable Values</u></p> <p>The BLM-managed segments of Mission Creek provide habitat for federal and state listed endangered species, and state species of special concern (SSSC):</p> <ul style="list-style-type: none"> – Southwestern Willow Flycatcher (<i>Empidonax traillii extimus</i> – federal and state endangered) – Least Bell's Vireo (<i>Vireo bellii pusillus</i> – federal and state endangered) – Yellow warbler (<i>Dendroica petechia brewsteri</i> – SSSC) – Yellow-breasted chat (<i>Icteria virens</i> – SSSC) – Crissal thrasher (<i>Toxostoma crissali</i> – SSSC) <p>The Pacific Crest National Scenic Trail parallels segments of Mission Creek (main channel) and the North Fork in the San Gorgonio Wilderness Additions. It is regarded by the Pacific Crest Trail Association as “the jewel in the crown of America’s scenic trails,” and spans 2,650 miles from Mexico to Canada through three states.</p> <p><u>Tentative Classification</u></p> <p>The upper segments of Mission Creek on BLM-managed lands within the San Gorgonio Wilderness Additions (totaling 3.1 miles in length), as well as the North and South Forks (totaling 1.5 miles in length), are tentatively classified as “wild” in accordance with Section 2(b) of the Act. The lower segments of Mission Creek (both inside and outside wilderness), as well as the West Fork, are readily accessible via dirt roads that parallel the river segments—in wilderness, use of the roads by a private landowner has been authorized by the BLM. These segments are tentatively classified as “recreational.”</p>
<p>Big Morongo Canyon</p>	<p><u>Not free flowing</u> – The presence of a high-pressure gas pipeline along the canyon bottom, in conjunction with potential major maintenance and/or repair activities that could substantially affect the free-flowing character of river segments on BLM-managed lands, renders Big Morongo Canyon as ineligible for designation as a Wild and Scenic River.</p> <p><u>Outstandingly Remarkable Values</u></p> <p>The BLM-managed segments of Big Morongo Canyon provide habitat for federal and state listed endangered species, and state species of special concern (SSSC):</p> <ul style="list-style-type: none"> – Southwestern Willow Flycatcher (<i>Empidonax traillii extimus</i> – federal and state endangered) – Least Bell's Vireo (<i>Vireo bellii pusillus</i> – federal and state endangered) – Yellow warbler (<i>Dendroica petechia brewsteri</i> – SSSC) – Yellow-breasted chat (<i>Icteria virens</i> – SSSC) <p>Big Morongo Canyon is not tentatively classified as “wild,” “scenic,” or “recreational” given its ineligibility for designation.</p>

Little Morongo Canyon	<p><u>Not free flowing</u> – The presence of a popular motorized-vehicle touring route along the canyon bottom (Kickapoo Trail) continually disrupts the free-flowing character of Little Morongo Canyon, thereby rendering it as ineligible for designation as a Wild and Scenic River. Illegal hill-climbing activities in the canyon have adversely affected soil conditions and vegetative composition. The hill climb routes are being reclaimed by the BLM.</p> <p><u>Outstandingly Remarkable Values</u> The BLM-managed segments of Little Morongo Canyon provide habitat for federal and state listed endangered species, a federal candidate species, and state species of special concern (SSSC):</p> <ul style="list-style-type: none"> – Southwestern Willow Flycatcher (<i>Empidonax traillii extimus</i> – federal and state endangered) – Least Bell's Vireo (<i>Vireo bellii pusillus</i> – federal and state endangered) – Yellow-breasted chat (<i>Icteria virens</i> – SSSC) – Little San Bernardino Mountains Linanthus (<i>Linanthus maculatus</i> – federal candidate) <p>Little Morongo Canyon is not tentatively classified as "wild," "scenic," or "recreational" given its ineligibility for designation.</p>
Palm Canyon	<p><u>Free flowing</u></p> <p><u>Outstandingly Remarkable Values</u> The BLM-managed segments of Palm Canyon provide habitat for federal and state listed endangered species, and state species of special concern (SSSC):</p> <ul style="list-style-type: none"> – Southwestern Willow Flycatcher (<i>Empidonax traillii extimus</i> – federal and state endangered) – Least Bell's Vireo (<i>Vireo bellii pusillus</i> – federal and state endangered) – Summer tanager (<i>Piranga rubra cooperi</i> – SSSC) – Yellow warbler (<i>Dendroica petechia brewsteri</i> – SSSC) – Yellow-breasted chat (<i>Icteria virens</i> – SSSC) – Gray Vireo (<i>Vireo vicinior</i> – SSSC) – Southern yellow bat (<i>Lasiurus ega (xanthinus)</i> – federal and state endangered) – Peninsular Ranges bighorn sheep (<i>Ovis canadensis</i> – federal endangered, SSSC) <p>Palm Canyon contains several archaeological sites significant in Cahuilla oral history. A prehistoric trail follows the canyon.</p> <p><u>Tentative Classification</u> The segment of Palm Canyon on BLM-managed lands is tentatively classified as "scenic." Although existing vehicle routes provide access to and parallel the river segment, these routes are temporarily closed pending completion of the Coachella Valley CDCA Plan Amendment, and would remain closed under the Amendment, though available for administrative purposes such as law enforcement, search and rescue, and fire control. General public access via motorized-vehicle would be prohibited.</p>

TABLE B-3. PROTECTIVE MEASURES

LOCATION OF ELIGIBLE RIVER SEGMENTS AND APPLICABLE MANAGEMENT GUIDANCE	PROTECTIVE MEASURES PENDING DETERMINATIONS OF SUITABILITY OR NON-SUITABILITY
<p><u>WILDERNESS</u> Management of the San Geronio Wilderness Additions in accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 would protect the free-flowing characteristics and outstandingly remarkable values of eligible river segments therein.</p>	<p><u>Wilderness Management</u> (partial listing of use restrictions) – Subject to valid existing rights, federal lands are withdrawn from all forms of appropriation under the mining laws. – New rights-of-way will not be granted. – Casual motorized vehicle and mechanized equipment use is prohibited. – Facilities and improvements such as trails, bridges, signs, and campsites may be provided only where they are the minimum necessary to protect the wilderness resource. – New trails may be constructed only if they are needed to preserve wilderness values and resources. – Establishment of new water-regulating structures is subject to approval by the President. – To the extent possible, wildlife species are allowed to maintain a natural balance with their habitat and with each other.</p>
<p><u>NATIONAL MONUMENT</u> Management of the Santa Rosa and San Jacinto Mountains National Monument in accordance with its establishing legislation and BLM interim management policy for National Monuments pending completion of the required planning process would protect the free-flowing characteristics and outstandingly remarkable values of eligible river segments therein.</p>	<p><u>Interim Management of the National Monument</u> – Subject to valid existing rights, federal lands are withdrawn from all forms of entry, appropriation, or disposal under the public lands laws; from location, entry, and patent under the public land mining laws; and from operation of the mineral leasing and geothermal leasing laws and the mineral material laws. However, lands may be exchanged with the Agua Caliente Band of Cahuilla Indians to support the existing cooperative agreement with the BLM. – Pending completion of the management plan, federal lands are managed substantially consistent with current uses occurring on such lands and under the general guidelines and authorities of existing management plans. – Vehicle access by the general public to Palm Canyon is temporarily prohibited pending completion of the Coachella Valley CDCA Plan Amendment. Under all alternatives of the plan amendment, this closure would continue. Routes accessing the eligible river segment would be available only for administrative purposes such as law enforcement, search and rescue, and fire control.</p>
<p><u>OTHER</u> Management of public lands outside designated wilderness and the Santa Rosa and San Jacinto Mountains National Monument in accordance with the California Desert Conservation Area Plan and the Coachella Valley CDCA Plan Amendment, upon approval, would protect the free-flowing characteristics and outstandingly remarkable values of eligible river segments.</p>	<p><u>CDCA Plan Guidance for Multiple-Use Class “L” (Limited Use) areas and Coachella Valley Amendments to the Plan</u> – Public lands designated as Class L are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished. – Motorized-vehicle use will be allowed on existing routes of travel until designation of routes is accomplished. The Coachella Valley CDCA Plan Amendment would continue an existing closure to general public access along the eligible segment of Mission Creek. – Management of public lands in accordance habitat conservation objectives and regional land health standards identified in the CDCA Plan Amendment would protect wildlife habitats, native species, riparian stream function, and water quality.</p>

Appendix C: Air Quality

I. AIR QUALITY MANAGEMENT STRATEGY

In accordance with the Clean Air Act as Amended (1990), the U.S. Environmental Protection Agency has developed National Ambient Air Quality Standards which are used to classify areas as to whether they are in attainment or not of the air quality standards. Areas that are classified as non-attainment areas, such as the Coachella Valley, are required to prepare and implement a State Implementation Plan that identifies and quantifies sources of emissions and provides a strategy to reduce emissions. In the Coachella Valley, there are a variety of natural and man-made fugitive dust sources that generate PM10 emissions.

In 2002, a State Implementation Plan for the Coachella Valley has been prepared which identifies sources of PM10, including revised construction-related emissions data from year 2000, and control measures to reduce emissions. There also are a set of rules (400 series) designed to limit area and point source particulate emissions and fugitive dust in the Coachella Valley. Under the Clean Air Act conformity rules (CAA 176(c) and 40 CFR part 51 subpart W), activities on BLM-managed lands in a non-attainment area must conform to the applicable State Implementation Plan. The BLM proposes to implement the following air quality management strategy to do its part in facilitating compliance with the 2002 Coachella Valley PM10 State Implementation Plan.

A. Reduce the unpaved route network.

The BLM strategy includes a reduction in the extent of the unpaved routes of travel network. This will be accomplished through the closure of routes which are redundant with other routes in a given area. Existing routes which are in conflict with the conservation goals and strategies of the Coachella Valley Multiple Species Habitat Conservation Plan (MSHCP) will also be closed or subject to seasonal closure.

B. Direct off-highway vehicle use away from sensitive receptors.

This management strategy consists of two related parts. One is to provide opportunities for off-highway vehicle use downwind of sensitive receptors in the Coachella Valley. Towards that end, the BLM is proposing Drop 31 as an area "open" to off-highway vehicles, located in the south east end of the Coachella Valley. The prevailing winds are from the northwest. The BLM would also like to collaborate with the appropriate state agencies to purchase private lands and establish a second off-highway vehicle use area east of Dillon Road and north of Interstate-10.

The second part of this management strategy addresses unauthorized off-highway vehicle use in closed areas, notably those upwind of sensitive receptors. BLM would post signs and enforce the closures. BLM would also seek to develop a volunteer patrol program to provide more on-the ground presence, and to report off-highway vehicle intrusions in closed areas to BLM law enforcement rangers.

C. Install Sand Fencing.

The BLM would install sand fencing where fencing can assist in reducing PM10 emissions upwind of sensitive receptors and maintain habitat for sand dependent species.

D. Authorized uses comply with State Implementation Plan.

All authorized uses with the potential to generate fugitive dust and PM10 shall be conditioned through the application of terms and conditions developed based on mitigation, management and control measures set forth in the State Implementation Program for PM10 in effect at the time of approval. Proposed projects with the potential to exceed National Ambient Air Quality Standards shall include in the environmental analysis, a dust control plan prepared in coordination with the South Coast Air Quality Management District.

II. COACHELLA VALLEY PM10 STATE IMPLEMENTATION PLAN

The South Coast Air Quality Management District (SCAQMD) has developed a revised and updated set of PM10 control measures designed to bring the Coachella Valley into compliance with federal PM10 standards. These proposed control measures are embodied in the draft 2002 Coachella Valley PM10 State Implementation Plan (SIP) and are summarized below.

Changes to the proposed control measures cited in the 2002 Coachella Valley PM10 SIP, may occur as a result of the most stringent measures (MSM) analyses, but are not expected to substantially change the conclusions regarding the environmental impacts analyzed. The draft 2002 Coachella Valley PM10 SIP also identifies specific enforceable SIP commitments. The control measures are proposed to be adopted as expeditiously as possible, but no later than the adoption dates outlined in the following table.

Table B-1: Summary of 2002 Coachella Valley PM10 SIP Control Measures

Control Measure	Source Category	Implementing Agency	Adoption Schedule
CV BACM 1	Construction	Local Jurisdictions	Prior to October 1, 2003
		AQMD Regulations	Prior to January 1, 2004
CV BACM 2	Disturbed Vacant Lands	Local Jurisdictions BLM	Prior to October 1, 2003
CV BACM 3	Unpaved Roads	Local Jurisdictions BLM	Prior to October 1, 2003
	Unpaved Parking Lots	Local Jurisdictions	Prior to October 1, 2003
CV BACM 4	Paved Roads	Local Jurisdictions	Prior to October 1, 2003
		AQMD Regulations	Prior to January 1, 2004
CV BACM 5	Agriculture	AQMD Regulations	Prior to January 1, 2004

A. CV BACM 1 – Further Control of Emissions from Construction Activities

CONTROL MEASURE SUMMARY	
Source Category:	Construction Activities
Control Methods:	Watering, chemical stabilization, wind fencing, re-vegetation, track-out control
Implementing Agency:	Local governments/ AQMD

1. **Description of Source Category**

Background. Construction activities are a fugitive dust source that may have a substantial temporary impact on local air quality. Emission sources during construction activities include land clearing, drilling and blasting, ground excavation, cut and fill activities, and windblown emissions from disturbed surfaces. Vehicular travel on disturbed surfaces and material tracked from unpaved surfaces onto paved public roads can also contribute to construction activity emissions. Construction activity fugitive dust emissions can vary significantly from day to day depending on the level/type of activity and wind conditions.¹

Regulatory History. In the Coachella Valley, construction projects are subject to dust control ordinances that require applicants to obtain local jurisdiction approval of a dust control plan (plan) prior to issuance of a grading permit. The ordinance requires that the plan must include sufficient detail to demonstrate compliance with AQMD Rule 403. In addition, AQMD Rules 403/403.1 serve as backstop regulations for Coachella Valley construction activity emissions. A summary of local jurisdiction dust control ordinance and AQMD Rule 403/403.1 requirements for construction activities is included in Chapter 4.

2. **Proposed Method of Control**

Local Jurisdiction Dust Control Ordinances. In order to facilitate enforcement activities at construction sites under local jurisdiction control, a revised model ordinance is proposed to be adopted by all Coachella Valley local jurisdictions. In addition to the dust control plan submittal requirements, the revised dust control ordinance is proposed to include the following upgrades to enhance construction site compliance determinations.

- All fugitive dust sources will be required to implement Coachella Valley Best Available Control Measures (CV BACM).
- Dust control plans required prior to issuance of building permits for projects with more than 5,000 square feet of disturbed soils unless a dust control plan has already been issued to the builder/developer through a grading permit. The plan must have the required elements described in the Coachella Valley Dust Control Handbook (which will be developed concurrently with the revised dust control ordinance).
- Site-specific dust mitigation plan required for construction activities greater than or equal to 10 acres (must be forwarded to AQMD after local approval). AQMD staff will compile this information for compliance purposes and not issue a separate approval.
- Construction activities greater than or equal to 10 acres must notify local jurisdiction/AQMD at least 24-hours prior to initiating earth-movement activities.

¹ U.S. Environmental Protection Agency, Compilation of Emission Factors (AP-42), Chapter 13 - Miscellaneous Sources, January 1995.

Appendix C - Air Quality

- Construction activities greater than or equal to 10 acres must notify local jurisdiction/AQMD within 10 days of project completion.
- Construction site signage required for projects requiring issuance of grading permit or building permit for a site with greater than or equal to 5,000 square feet (approximately 0.1 acre) of disturbed soils, activities that import or export more than 100 cubic yards of material, or trenching activities greater than 100 feet in length. AQMD staff proposes to scale the signage requirements based on project site acreage (i.e., smaller/fewer signs required for sites with between 5,000 square feet to five acres with larger signage required for sites with more than five acres). Based on guidance contained in Clark County and Maricopa County regulations, sites with more than ten acres would be required to install four-foot by eight-foot signs with the following information provided in three-inch lettering: project name, permittee name, phone number of person(s) responsible for dust control, AQMD phone number, dust control permit (plan) number, and project acreage.
- Dust control monitor (responsible person) required for sites with greater than or equal to 50 acres of actively disturbed soils. Monitor(s) must be hired by property owner or developer, have dust control as primary responsibility, and have the authority to initiate dust control measures.

Work Practice Requirements. Under existing dust control ordinance requirements, activities that submit a dust control plan are required to provide sufficient detail to demonstrate compliance with AQMD Rule 403. In order to provide more direct guidance, the AQMD proposes that specific work practices be incorporated into the revised dust control ordinance. These work practice requirements are based on the most stringent requirements contained in Clark and Maricopa County regulations and are intended to ensure a baseline level of control regardless if a plan has been submitted. Specific dust control work practices include the following.

- Earth-moving operations on sites with greater than one acre of disturbed surfaces are required to operate a water application system (i.e., water truck) while conducting earth-moving operations if watering is the selected control measure.
- Short-term stabilization (maintaining soils in a damp condition, surface crust, or chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months) required for after-hours/weekends.
- Long-term stabilization techniques required within 10 days for areas where construction activities are not scheduled for 30 days.
- Track-out control device (washed gravel pad at least 30 feet wide, 50 feet long, and six inches deep, paving starting from the point of intersection with a paved public roadway and extending for a centerline distance of at least 100 feet and a width of at least 20 feet, grizzly or wheel wash system) required for construction projects greater than or equal to five acres or those that import/export greater than or equal to 100 cubic yards per day. Regardless of project size or track-out control device selected, material tracked-out onto a paved public road must be removed at anytime it extends more than 50 feet from a site entrance and at the conclusion of the work day.

Local Government/AQMD Agreements. To ensure a uniform approach to development and approval of dust control plans, all jurisdictions are proposed to be required to adopt the Coachella Valley Dust Control Handbook in conjunction with the revised dust control ordinance. The Coachella Valley Dust Control Handbook will be an enforceable upgrade to the Coachella Valley Dust Control Plan Review Guidance document approved by the Coachella Valley Association of

Governments (CVAG) in March of 2001. The intent of the Coachella Valley Dust Control Handbook is to specify the procedures for preparation and approval of a dust control plan, similar to the Handbooks prepared by Maricopa and Clark Counties. Elements of the Coachella Valley Dust Control Handbook are to include:

- Project applicant forms
- Project description forms (acreage, phasing, water sources)
- Requirements for site mapping (site location/boundaries and all access points)
- Forms for notifying local jurisdictions/AQMD of project initiation/completion
- Standards (dimensions, lettering, location, etc.) for construction site signage
- List of Coachella Valley Best Available Control Measures (CV BACM) for fugitive dust sources
- Forms to describe the CV BACM to be implemented on-site (routine dust control measures in sufficient detail to facilitate compliance determinations and a description of the contingency control measures to be implemented if the routine measures are ineffective)
- Estimates of daily throughput
- Detailed description of track-out control system (gravel pad, wheel washer, etc.) and procedures for removal of material that extends more than 50 feet from any site access point
- Identification of dust control monitor (responsible person) for sites with greater than or equal to 50 acres of actively disturbed soils.
- Checklist for local government plan reviewers
- Sample recordkeeping form

Finally, the AQMD is proposing to enter into a Memorandum of Understanding (MOU) with either CVAG or each local jurisdiction to specify responsibilities and commitments (permitting fees, enforcement staffing, penalty procedures, etc.) associated with the revised dust control ordinance provisions.

AQMD Regulations. Construction/earth-movement activities that are not required to obtain grading/building permits from local jurisdictions (School Districts, Flood Control Maintenance, Caltrans, etc.) are currently subject to AQMD Rules 403/403.1. Under the planned dust control program upgrades, the AQMD proposes to revise these regulations to require:

- Implementation of CV BACM instead of Reasonably Available Control Measures (RACM) that are currently required. These CV BACM would be required of all Coachella Valley fugitive dust sources.
- An AQMD-approved dust control plan (plan) for any source not under local jurisdiction control with greater than or equal to one acre of disturbed surfaces, or those that import/export greater than or equal to 100 cubic yards per day, or trenching activities greater than 100 feet in length.
- An AQMD-approved plan must follow the Coachella Valley Dust Control Handbook procedures summarized above. For routine maintenance activities (i.e., road shoulder/flood control channel maintenance), one AQMD-approved plan can be developed and approved for multiple sites provided that sufficient information is provided to describe dust control efforts.

3. Emission Reductions

All of the control options listed above represent existing technologies that are presently available to construction site managers. For more traditional air pollution sources, such as point sources, emissions reductions are calculated by multiplying the baseline emissions by the effectiveness of a given control technology (e.g., selective catalytic reduction). For non-traditional air pollution sources, such as fugitive dust, emissions reductions calculations are more difficult because the

level of control necessary to comply will vary greatly due to site-specific conditions. For example, a construction site in a wind-protected cove area of the desert may need to apply less water to a grading project when compared to a site located in the Coachella Valley blowsand zone. Moreover, many of the proposed rule requirements allow various control options. Accordingly, it is not possible to quantify precise emissions reductions from implementation of the proposed revised dust control ordinance/AQMD rule requirements. A study conducted by the Midwest Research Institute that monitored PM₁₀ emissions both with and without an extensive watering program, however, determined that an effective watering program can reduce PM₁₀ emissions by 60 to 90 percent.²

4. Rule Compliance /Test Methods/ Record keeping

The following test methods/performance standards are proposed for the locally-adopted dust control ordinances and AQMD regulations: visible plume length limit (e.g., 100 - 300 feet), 20 percent opacity for active operations, silt loading not to exceed 0.33 ounces/square foot or silt content not to exceed 6 percent for haul roads, and drop ball/threshold friction velocity for disturbed surface areas. Self-inspection records (daily inspection of damp or crusted soils, track-out conditions, water usage) must be prepared and retained for three years after project completion and must be made available to the local jurisdiction/AQMD upon request. The Coachella Valley Dust Control Handbook will contain sample recordkeeping forms. Activities that use chemical dust suppressants will be required to maintain records indicating type of product applied, vendor name, and the method, frequency, concentration, and quantity of application.

5. Cost Effectiveness

In 1997, AQMD adopted amendments to Rule 403.³ Among other requirements, these amendments upgraded the existing Reasonable Available Control Measure implementation requirement to require Best Available Control Measures implementation for all fugitive dust sources in the South Coast Air Basin. The cost-effectiveness of these upgrades were estimated at \$197 per ton of PM₁₀ reduced.

6. Implementing Agency

Local jurisdictions have the authority to require and enforce conditions of approval (i.e., plan conditions) prior to issuance of building/grading permits. Additionally, Health and Safety Code Section 40449 states that there are no limitations on cities or counties to adopt any ordinance that is more stringent than and not in conflict with AQMD regulations. Under this Health and Safety Code Section, AQMD also has the authority to enforce locally-adopted ordinance provisions and conditions of approval placed on construction projects. The AQMD has the authority to adopt and enforce rules and regulations to achieve and maintain the National Ambient Air Quality Standards under Health and Safety Code Section 40413.

² Midwest Research Institute, Improvement of Specific Emission Factors, March 29, 1996

³ South Coast Air Quality Management District, Revised Final Staff Report for Proposed Amended Rule 403 (Fugitive Dust) and Proposed Rule 1186 (PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations), February 14, 1997.

B. CV BACM 2 – Disturbed Vacant Lands

CONTROL MEASURE SUMMARY	
Source Category:	Disturbed Vacant Lands
Control Methods:	Chemical stabilization, wind fencing, access restriction, re-vegetation
Implementing Agency:	Local governments/ AQMD / BLM

1. **Description of Source Category**

Background. Fugitive dust emissions can be generated by wind erosion of vacant lands and areas that have been disturbed by man-made activities. In the Coachella Valley, a unique situation exists where approximately 20,000 acres of vacant land have been preserved to protect the federally threatened Coachella Valley fringe-toed lizard. These animals rely on sand migration for foraging and habitat and thus, the control of fugitive dust from wind erosion is prohibited in these areas. Accordingly, the proposed disturbed vacant land controls target areas subject to man-made disturbances (i.e., off-road vehicle use, inactive construction sites, etc.). As mentioned in Chapter 2, exclusion of certain air quality data is allowed under the U.S. EPA Natural Events Policy if it can be documented that emissions are attributable to a natural source such as the Coachella Valley preserve.

Regulatory History. The dust control ordinance currently requires owners of unimproved property to discourage off-road motor vehicle use through signage and/or fencing as deemed necessary by local jurisdiction. In addition, AQMD Rules 403/403.1 serve as backstop regulations for the dust control ordinance.

2. **Proposed Method of Control**

In order to facilitate enforcement activities on disturbed vacant lands, a revised dust control ordinance is proposed for adoption by all Coachella Valley local jurisdictions. The revised dust control ordinance is proposed to include the following upgrades to further reduce emissions from disturbed surface areas.

- Owners/operators of vacant lands greater than or equal to 5,000 square feet that have a cumulative area of more than or equal to 500 square feet that are disturbed by motor vehicles and/or off-road motor vehicles are required to prevent trespass by installing barriers. If access restriction is not feasible, owners/operators may choose to uniformly apply and maintain washed gravel or chemical/organic dust suppressants to all disturbed areas at a level sufficient to prevent wind driven fugitive dust. These treatments shall be required within 30 days of initial discovery by either the local jurisdiction or the AQMD and must be maintained in a condition that to meet the applicable performance standards.
- Owners/operators of disturbed vacant lands greater than or equal to 0.5 acre are required to establish vegetative ground cover, stabilize with chemical dust suppressants or washed gravel, or implement and maintain an alternative U.S. EPA-approved control measure at a level sufficient to prevent wind driven fugitive dust. These treatments shall be required within 30 days of initial discovery by either the local jurisdiction or the AQMD and must be maintained in a condition to meet the applicable performance standards.
- Owner/operators of vacant lands where weed abatement is conducted by disking or blading shall be required to apply water before and during weed abatement activities and

stabilize the site with vegetative ground cover, chemical dust suppressants, washed gravel, or implement and maintain an alternative U.S. EPA-approved control measure at a level sufficient to prevent wind driven fugitive dust.

3. Emission Reductions

All of the control options listed above represent existing technologies that are presently available to owner/operators of disturbed vacant lands. As with the proposed controls for construction activities, there are a range of compliance options for reducing PM10 emissions from disturbed vacant lands. Accordingly, it is difficult to estimate the percent reduction from this source category. For reference, the AQMD 1990 Coachella Valley PM10 State Implementation Plan (1990 CV SIP) estimated that vacant land control measures (vegetative cover, chemical stabilization, and wind fencing) would reduce emissions by 28 percent.⁴

4. Rule Compliance/ Test Methods/ Record keeping

The following test methods/performance standards are proposed for the locally-adopted dust control ordinances: wind driven fugitive dust (defined as visible emissions from any disturbed surface area generated from wind action alone), drop ball, vegetative cover, rock test and/or threshold friction velocity.

To proactively address potential wind erosion emissions from disturbed vacant lands, owners of disturbed vacant lands that are subject to the revised dust control ordinance provisions are required to notify the City (County) of the location of subject vacant lands and owner contact information within 90 days of ordinance adoption.

Owner/operators of disturbed vacant lands will be required to compile records of evidence that documents compliance with the ordinance requirements. Said records of evidence may include, but shall not be limited to, name and contact person of all firms contracted with for dust suppression, listing of all dust control implements used on-site, and proof (invoices from dust suppressant and dust control implement vendors) of dust suppressant application. The records must be retained for three years and made available to the City (County) and AQMD upon request.

5. Cost Effectiveness

Cost-effectiveness calculations for controlling emissions from disturbed vacant lands were calculated in the 1990 CV SIP as follows: stabilizing blowsand areas with chemical stabilizers - \$810/ton PM10 reduced, snow fence windbreaks - \$281/ton PM10 reduced, tree wind breaks - \$409/ton PM10 reduced, and vegetative planting \$532/ton PM10 reduced.

6. Implementing Agency

Under general police powers, local jurisdictions have the authority to impose requirements and enforce ordinance requirements on owners of disturbed vacant lands. Additionally, Health and Safety Code Section 40449 states that there are no limitations on cities or counties to adopt any ordinance that is more stringent than and not in conflict with AQMD regulations. This Health and Safety Code Section also provides the AQMD with the authority to enforce locally-adopted ordinance provisions and conditions of approval placed on construction projects.

⁴ South Coast Air Quality Management District, State Implementation Plan for PM10 in the Coachella Valley, November 1990.

C. CV BACM 3 – Unpaved Roads and Unpaved Parking Lots

CONTROL MEASURE SUMMARY	
Source Category:	Unpaved Roads and Unpaved Parking Lots
Control Methods:	Paving, chemical stabilization, access restriction, re-vegetation
Implementing Agency:	Local governments/ AQMD / BLM

1. **Description of Source Category**

Background. Continued growth and development in the Coachella Valley has resulted in conversion of many unpaved surfaces to paved areas. Additionally, unpaved roads and unpaved parking lots are typically not permitted in new land use developments. In spite of this, existing vehicular travel on and windblown emissions from unpaved roads and unpaved parking lots continue to generate significant amounts of fugitive dust and the accompanying PM10 emissions.

Regulatory History. The existing model ordinance requires that owners of public or private unpaved roads with between 20 and 150 average daily traffic (ADT) levels must take measures (signage or speed control devices) to reduce vehicular speeds to 15 miles per hour. Owners of public or private unpaved roads with more than 150 ADT are required to pave the roadway or submit a Fugitive Dust Mitigation Plan that specifies the method(s) to reduce fugitive dust emissions within six months of ordinance adoption. In addition, AQMD Rule 403 serves as a backstop regulation for the dust control ordinance.

2. **Proposed Method of Control**

In order to improve enforcement determinations for unpaved roads and parking lots, a revised model ordinance is proposed to be adopted by all Coachella Valley local jurisdictions. The revised dust control ordinance is proposed to include the following upgrades to further reduce emissions from unpaved roads and unpaved parking lots.

Unpaved Roads.

- Upon dust control ordinance adoption, new unpaved roads or alleys are prohibited as public thoroughfares after July 1, 2002 unless chemical dust suppressants are applied and maintained according to the applicable standards/test methods.
- Owner/operators of public or private unpaved roads with between 20 and 150 average daily traffic (ADT) levels must take measures (signage or speed control devices) to reduce vehicular speeds to 15 miles per hour (*existing model ordinance requirement*).
- Owner/operators of public or private unpaved public roads, including alleys, constructed prior to July 1, 2002, that have ADT levels of 150 or more, are required to pave, apply and maintain chemical dust suppressants according to the applicable rule standards/test methods in accordance with the following schedule--- 1/3 of qualifying unpaved roads within one year of ordinance adoption with the remainder treated within two years of ordinance adoption.

Unpaved Parking Lots. Upon dust control ordinance adoption, new unpaved parking lots are prohibited unless treated with chemical dust suppressants or stabilized with chemical dust suppressants in travel lanes and two inches of uniformly applied washed gravel in parking areas and maintained in accordance with the applicable standards/test methods. Owners/operators of an existing unpaved parking lot larger than 5,000 square feet are required to pave, apply chemical dust suppressants, or apply washed gravel, according to the applicable rule standards/test methods within six months of ordinance adoption. Owners/operators of unpaved parking lots that are used no more than 35 days a year are required to implement control measures [apply dust suppressants or apply washed gravel] according to the applicable rule standards/test methods on days when more than 10 vehicles enter and park.

3. Emission Reductions

All of the control options listed above represent existing technologies that are presently available to owner/operators of unpaved roads and unpaved parking lots. Because the proposed control measure allows the implementation of a variety of control options it is difficult to estimate the accompanying emission reductions. The 1997 AQMD staff report for Rule 1186 (applicable to unpaved roads within the South Coast Air Basin) included the following emission reduction percentages for the various control options paving unpaved roads - 94 percent reduction, chemical stabilization - 75 percent reduction, and 15 mile per hour speed limits - 50 percent reduction.⁵

4. Rule Compliance/ Test Methods/ Record keeping

The following test methods/performance standards are proposed for the locally-adopted dust control ordinances: visible plume length limit of 100 - 300 feet, 20 percent opacity standard, a 6 percent silt content standard and a 0.33 ounces per square foot silt loading standard (for unpaved roads), an eight percent silt content standard and a 0.33 ounces per square foot silt loading standard (for unpaved parking lots), and/or gravel applied uniformly and maintained to a depth of two inches.

To proactively address potential emissions from unpaved roads and unpaved parking lots owner/operators must report unpaved road locations and ADT estimates and parking lot size to the applicable jurisdiction within six months of ordinance adoption. Local jurisdictions will then be required to prepare annual reports that describe the total unpaved road miles within their jurisdictional boundaries and the miles paved or treated in compliance with the revised dust control ordinance requirements until all applicable roads are in compliance. The annual reports must also include an inventory of unpaved parking lots within the jurisdiction and describe the control actions implemented to demonstrate compliance with the ordinance requirements. If chemical dust suppressants are used as an alternative to paving, then the annual report shall include the date, amount and proposed frequency of chemical dust suppressant application, and the manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. These records must be retained for three years and made available to the local jurisdiction/AQMD upon request.

⁵ South Coast Air Quality Management District, Revised Final Staff Report for Proposed Amended Rule 403 (Fugitive Dust) and Proposed Rule 1186 (PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations), February 14, 1997.

5. Cost Effectiveness

Costs for unpaved road treatments were estimated in the 1997 AQMD Rule 1186 staff report as follows: paving - \$350,000 per mile, chemical stabilization - \$16,107 per mile, and speed limit reduction: \$200 per sign with four signs required per mile for a total of \$800 per mile. The overall cost-effectiveness of AQMD Rule 1186 unpaved road treatment requirements was estimated at \$958 per ton of PM₁₀ reduced.⁶

6. Implementing Agency

Under general police powers, local jurisdictions have the authority to impose dust control ordinance requirements on owner/operators of unpaved roads and parking lots and enforce the accompanying dust control ordinance provisions. Additionally, Health and Safety Code Section 40449 states that there are no limitations on cities or counties to adopt any ordinance that is more stringent than and not in conflict with AQMD regulations. This Health and Safety Code Section also provides AQMD with the authority to enforce locally-adopted ordinance provisions.

⁶ South Coast Air Quality Management District, Revised Final Staff Report for Proposed Amended Rule 403 (Fugitive Dust) and Proposed Rule 1186 (PM₁₀ Emissions from Paved and Unpaved Roads, and Livestock Operations), February 14, 1997.

III. AIR QUALITY CONFORMITY ANALYSIS

INTRODUCTION

The Coachella Valley and Western Morongo Basin portions of the CDCA planning area are in “non-attainment” for PM₁₀ (particulate matter 10 microns or smaller) and ozone. Section 176 (c) of the Clean Air Act (CAA), as amended (42 U.S.C. 7401 *et seq.*) and regulations under 40 CFR part 51 subpart W requires federal agencies to make a determination that a proposed action is or will be in conformity with applicable implementation plans meant to bring an area into compliance. The exceedances for ozone are primarily due to ozone's production and importation outside the plan area and, therefore, efforts to control ozone in those areas in conjunction with existing industrial rules will reduce ozone in the planning area. Within the plan area, however, PM₁₀ is primarily associated with local conditions and activities. Two separate State Implementation Plans (SIPs) have been adopted, which direct actions to be taken to bring the respective areas into compliance with federal PM₁₀ standards.

MORONGO BASIN PM₁₀ PLAN CONFORMITY ANALYSIS

PM₁₀ violations throughout the Mojave Desert Air Basin are primarily attributed to heavy fugitive dust sources in and around urbanized areas and dust generated from large-scale high wind events.⁷ Major dust sources in urbanized areas include unpaved road travel, off-highway vehicle use, wind erosion of unpaved roads and disturbed soils, and construction and demolition activity. In an effort to bring the region into compliance with federal PM₁₀ standards, the MDAQMD adopted a “Federal Particulate Matter Attainment Plan” in 1995, which sets forth a control strategy plan for the entire District. The strategy is aimed at reducing fugitive dust emissions from unpaved road travel, construction/demolition activities, disturbed areas, and industrial activities. All development in the District must comply with the provisions of this Plan and other applicable MDAQMD emissions requirements.

With the implementation of the “air quality management strategy” and appropriate mitigation for any emission producing projects, in the preferred alternative of the Coachella Valley CDCA Plan Amendment, there will be an overall reduction in air emissions within the Western Morongo Basin subarea from BLM managed lands. Therefore, cumulatively, activities on the BLM lands will be in conformance with the current Morongo Desert Air Basin's “Federal Particulate Matter Attainment Plan”.

COACHELLA VALLEY PM₁₀ PLAN CONFORMITY ANALYSIS

The air quality conformity analysis is a process that evaluates a variety of criteria, including special and jurisdictional applicability, current SIP and its status and rules and provisions, and other issues. Each of these steps is described and addressed below. The South Coast Air Quality Management District has drafted the 2002 CVSIP, which details the control measures necessary to attain the PM₁₀ standards again. This analysis addresses conformance of the CDCA Plan Amendment with the 2002 CVSIP and its more stringent standards.

⁷ “Mojave Desert Planning Area Federal Particulate Matter (PM₁₀) Attainment Plan,” Mojave Desert Air Quality Management Plan, July 31, 1995.

1. Spatial and Jurisdictional Applicability

The Coachella Valley encompasses approximately 2,500 square miles and is located in the central portion of Riverside County known as the Salton Sea Air Basin (SSAB). The 2002 CVSIP focuses on the Coachella Valley as defined by Banning Pass to the north, by the Riverside/Imperial county boundary lines to the south, by the San Jacinto Mountains to the west, and by the San Bernardino Mountains to the east. Elevation ranges from 500 feet above sea level to 150 feet below sea level. On private and state-regulated lands, the South Coast Air Quality management District (SCAQMD) has responsibility for assuring compliance with applicable state and federal air quality regulations. The US EPA is directly involved in assuring that SCAQMD and affected jurisdictions take appropriate actions to "attain" federal standards. Lands under federal control are required to demonstrate compliance with applicable attainment plans, including the Coachella Valley SIP.

2. Coachella Valley 2002 State Implementation Plan

In November 1990, areas in the United States that were previously designated as federal nonattainment areas for PM₁₀, including the Coachella Valley, were initially designated as "moderate" PM₁₀ nonattainment areas. The Coachella Valley PM₁₀ SIP (CVSIP) was adopted in November, 1990 and incorporated "reasonably available control measures" (RACM). The 90-CVSIP identified candidate control measures and demonstrated attainment of the NAAQS for PM₁₀ by the year 1995, one year after the statutory limit for moderate nonattainment areas. Unable to meet regulatory standards, the Coachella Valley was redesignated as "serious" effective February 8, 1993. In response, the SCAQMD prepared a SIP revision (94-CVSIP) that identified candidate Best Available Control Measures (BACM) for implementation prior to February 8, 1997. Compliance seemed to have been achieved in the period from 1993 through 1995. The 1996 CVSIP demonstrated attainment of the PM₁₀ standards. From 1999 through 2001, PM₁₀ dust levels rose sufficiently to exceed the annual average PM₁₀ standard. Based upon the exceedances during this period, coupled with very low rainfall, the Coachella Valley was determined to be on non-attainment of federal PM₁₀ standards.

Under Title I of the CAA, EPA sets limits on how much of a particular pollutant can be present in the air for any given location within the United States. EPA, states, and local governments are required under the CAA to implement measures to prevent and control air pollution, with significant responsibility resting with the states. The major mechanism used to attain the standards in individual areas is a SIP.

The 2002 Coachella Valley State Implementation Plan (CVSIP) updates the previous Coachella Valley plans to address the recent rise in PM₁₀ levels above the standard and forestall a notice of failure to attain. Its elements include the following:

- ▶ Air quality summary from 1997-2001, including natural events;
- ▶ Emissions inventory update;
- ▶ Most Stringent Measures (MSM) analysis and Proposed Control Strategy;
- ▶ Attainment demonstration;
- ▶ Natural Events Action Plan status and update; and
- ▶ Request for Extension of 2001 PM₁₀ attainment deadline.

The following table is a summary of the control strategies in the 2002 CVSIP.

Summary of 2002 CVSIP Control Strategies

CONTROL MEASURE	TITLE	CONTROL METHOD
BACM-1	Construction Activities	watering, chemical stabilization, wind fencing, revegetation, track-out
BACM-2	Disturbed Vacant Lands	chemical stabilization, wind fencing, access restriction, revegetation
BACM-3	Unpaved Roads and Unpaved Parking Lots	paving, chemical stabilization, access restriction, revegetation
BACM-4	Paved Road Dust	minimal track-out, stabilization of unpaved road shoulders, clean streets management
BACM-5	Control of Emissions from Agricultural Activities	requirements to implement agricultural handbook conservation practices

3. Air Quality Impact Analysis for the Proposed CDCA Plan Amendment

The preferred alternative of the Coachella Valley CDCA Plan Amendment addresses a variety of plan elements, including an Air Quality Management Strategy, Land Health Standards, Visual Resource Management Classification, Fire Management, Habitat Conservation Objectives, Multiple Use Classification, Wild and Scenic River Eligibility, Special Area Designations, Land Tenure Exchange & Sale Criteria, Land Tenure Acquisition Criteria, Management of Acquired Lands, Communication Sites & Utilities, Sand and Gravel Mining, Livestock Grazing, Wild Horse and Burro Program, Motorized vehicle Area Designations, Motorized vehicle Route Designations, Special Recreation Management Area designation, Stopping/Parking/Vehicle Camping, Bighorn Sheep Recovery Strategy, and Hiking/Biking/Equestrian Trails.

Air Quality Management Strategy. The preferred alternative for the Coachella Valley CDCA Plan Amendment includes an air quality management strategy designed to reduce PM10 emissions from the BLM-managed public lands, especially upwind of sensitive receptors. The motorized-vehicle route network would be reduced by 20%, closing redundant routes and closing all informal off-highway vehicle “free-play” areas, upwind of sensitive receptors (i.e. residents of the Coachella Valley). Installation of new communication sites, wind parks, and sand and gravel mining operations would be restricted to designated areas. Where feasible, BLM would install sand fencing to reduce the amount of sand flow and PM10 emissions off of the public lands.

Of the various plan elements set forth above, those with the potential to exceed National Ambient Air Quality Standards include: 1) Communication Sites and Utilities, 2) Sand and Gravel Mining, 3) Motorized Vehicle Area Designations, and 4) Motorized Vehicle Access Route designations. Potential impacts associated with these plan elements, how potential impacts are mitigated and how BLM actions comply with CVSIP provisions and rules are discussed for each plan element below.

Communication Sites and Utilities, Sand and Gravel Mining: Potential PM₁₀ generation associated with proposed amendments to these CDCA Plan elements are limited. The issuance of new or renewed rights of way for windparks, communication sites and utilities would be required to be consistent with the BLM's habitat conservation objectives, land health standards and air quality management strategy, as well as the National Ambient Air Quality Standards and current State Implementation Plan. Most potentially viable windpark lands in the Plan area have already been developed. Any requests for new communication towers would be restricted to existing communication sites.

Existing sand and gravel operations of BLM lands within the CDCA planning area are already subject to a variety of requirements to control blowing sand and the emission of fugitive dust. Under the preferred alternative for the Coachella Valley CDCA Plan Amendment, saleable mineral materials would be restricted to those identified by the California Division of Mines and Geology as mineral resource zones (MRZs). Proposed new sand and gravel mines would be required to demonstrate compatibility with BLM's habitat conservation objectives, land health standards and air quality management strategy, as well as the National Ambient Air Quality Standards and current State Implementation Plan, before new rights-of-way would be issued.

Potential areas of PM₁₀ impact include the construction, maintenance and use of roads, initial site disturbance for facilities (turbines, powerlines, substations, antennas, etc.). New construction activities would be required to comply with the 2002 CVSIP rules and provisions, including the following:

- All fugitive dust sources will be required to implement Coachella Valley Best Available Control Measures (CV BACM).
- Dust control plans required prior to issuance of building permits for projects with more than 5,000 square feet of disturbed soils unless a dust control plan has already been issued to the builder/developer through a grading permit. The plan must have the required elements described in the Coachella Valley Dust Control Handbook (which will be developed concurrently with the BLM's revised dust control ordinance).
- Site-specific dust mitigation plan required for construction activities greater than or equal to 10 acres (must be forwarded to AQMD after local approval). AQMD staff will compile this information for compliance purposes and not issue a separate approval.
- Project on BLM lands would be required to obtain an AQMD approved dust control plan.
- Construction activities greater than or equal to 10 acres must notify local jurisdiction/AQMD within 10 days of project completion.
- Construction site signage required for projects with greater than or equal to 5,000 square feet (approximately 0.1 acre) of disturbed soils, activities that import or export more than 100 cubic yards of material, or trenching activities greater than 100 feet in length. Sites with more than ten acres would be required to install four-foot by eight-foot signs with the following information provided in three-inch lettering: project name, permittee name, phone number of person(s) responsible for dust control, AQMD phone number, dust control permit (plan) number, and project acreage.
- Dust control monitor (responsible person) required for sites with greater than or equal to 50 acres of actively disturbed soils. Monitor(s) must be hired by property owner or developer, have dust control as primary responsibility, and have the authority to initiate dust control measures.

Under existing dust control ordinance requirements, activities that submit a dust control plan are required to provide sufficient detail to demonstrate compliance with AQMD Rule 403. Specific dust control work practices include the following.

- Earth-moving operations on sites with greater than one acre of disturbed surfaces are required to operate a water application system (i.e., water truck) while conducting earth-moving operations if watering is the selected control measure.
- Short-term stabilization (maintaining soils in a damp condition, surface crust, or chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months) required for after-hours/weekends.
- Long-term stabilization techniques required within 10 days for areas where construction activities are not scheduled for 30 days.

Track-out control device (washed gravel pad at least 30 feet wide, 50 feet long, and six inches deep, paving starting from the point of intersection with a paved public roadway and extending for a centerline distance of at least 100 feet and a width of at least 20 feet, grizzly or wheel wash system) required for construction projects greater than or equal to five acres or those that import/export greater than or equal to 100 cubic yards per day. Regardless of project size or track-out control device selected, material tracked-out onto a paved public road must be removed at anytime it extends more than 25 feet from a site entrance and at the conclusion of the work day.

Motorized Vehicle Access Route Designations: Potential PM10 emissions associated with the preferred alternative for routes of travel are limited by the air quality management strategy incorporated into the Coachella Valley CDCA Plan amendment. Under the preferred alternative, the route existing network would be reduced by 20%, by closing redundant routes upwind of sensitive receptors. The relative amount of PM10 emissions generated by motorized vehicles on the remaining 45 miles of routes would depend on the average daily trips, the velocity of the vehicles and prevailing wind speeds.

Many of these routes occur within wash areas on canyons and alluvial fans comprised of course sands and gravels, and are mostly outside areas with high levels of soil silt and fines. Nonetheless, the ongoing use of these areas has the potential to emit or create conditions for fugitive dust. The average level of use on these routes of travel have been estimated for high and low-activity periods: 5 average daily trips (ADT) on weekdays and during all days in the summer; and 25 ADT on weekends and during hunting season. Based upon current knowledge and understanding of this use and its potential to contribute to PM10 emissions, the preferred alternative CDCA Plan Amendment would not result in significant PM10 air quality impacts, and would result in an overall reduction of PM10 emissions from the public lands. In an effort to help the Coachella Valley reach “attainment” status for PM10, route management would include provisions to comply with the approved PM10 State Implementation Plan, such as 1) signage, 2) establishing cattle guards to reduce “track out” onto paved roads, 3) 15 mile per hour speed limits on unpaved roads with 20 to 150 average daily traffic levels, and 4) temporary closures on high wind days (as defined by the South Coast Air Quality Management District).

Motorized Vehicle Area Designations: Potential PM10 emissions associated with the preferred alternative for motorized vehicle area designations are limited by the air quality management strategy incorporated into the Coachella Valley CDCA Plan amendment. Under the preferred alternative, all historically used “open” areas upwind of sensitive receptors would be closed (2,360 acres) to off-highway vehicles. Only the 1,040 acre Drop 31 area, which is located downwind of sensitive receptors, would be available for “open” off-highway vehicle use. Any valley-wide reductions in PM10 emissions upwind of sensitive receptors, will depend on the extent to which displaced off-highway vehicle enthusiasts use non-federal land instead of public land, or travel farther to other “open” public land areas, such as Drop 31.

The off-highway vehicle users themselves would be exposed to PM10 emissions at the Drop 31 site, the relative amount depending on the velocity of the vehicle and prevailing wind speeds. As part of the overall management strategy for the Drop 31 area, mitigation measures will be included to reduce PM10 emissions, such as temporary closure of the Drop 31 area on high wind days (as defined by the South Coast Air Quality Management District), setting speed limits, establishing cattle guards to reduce “track out” onto paved roads, install fencing and signs to discourage trespass into wilderness and onto private lands, setting a carrying capacity if the place becomes enormously popular, and assuring compliance with the approved PM10 State Implementation Plan. Based upon current knowledge and understanding of motorized vehicle use and its potential to contribute to PM10 emissions, the preferred alternative CDCA Plan amendment will result in reduced PM10 emissions from the public lands, especially for sensitive receptors in the Coachella Valley.

DRAFT CONFORMITY DETERMINATION

The BLM's preferred alternative for the Coachella Valley CDCA Plan and alternatives have been analyzed under Section 176 of the Clean Air Act, as required by 40 CFR 93.158. The preferred alternative incorporates an air quality management strategy which applies measures to reduce PM10 emissions from the public lands upwind of sensitive receptors, and contributes to the goals set forth in the 2002 Coachella Valley PM10 State Implementation Plan. The proposed CDCA Plan Amendment has been determined to be in conformance with the applicable State Implementation Plans for the purpose of attaining the National Ambient Air Quality Standards.

APPENDIX D: MOTORIZED-VEHICLE ACCESS

BACKGROUND

CALIFORNIA DESERT CONSERVATION AREA PLAN, 1980, AS AMENDED

Other than those who are simply crossing it, most users of the desert travel some of the time on its network of maintained gravel and dirt roads, ways, trails, and accessible desert washes. There are many of these "routes of travel" in the California Desert Conservation Area (CDCA).

According to one study, the CDCA has 15,000 miles of paved and maintained roads, 21,000 miles of unmaintained dirt roads, and 7,000 miles of vehicle-accessible washes. However, these routes are not evenly distributed, and desert topography and vegetation do not prevent, and sometimes encourage, cross-country travel in motorized vehicles. Desert soils and vegetation retain the marks of this kind of travel for many years, except in a few places where occasional rains, windstorms, and flash floods erase them. Thus, one vehicle traveling cross-country can create a new route of travel. The proliferation of roads and trails in the CDCA has resulted in a serious problem in some areas and provides the most difficult management issue for BLM and the public.

Many of the Desert's loveliest and most fragile resources can only be enjoyed by use of vehicle access routes, but these resources are quickly destroyed if vehicles travel everywhere. Most people who go to the desert revel in its spaciousness and the feeling of solitude and freedom it provides. However, growing numbers of vehicles and uncontrolled expansion of this network of roads and trails may damage this solitude, and heavy-handed regulations to control this traffic would certainly affect the sense of freedom.

The question of managing access to the desert is especially sensitive. Vehicle access is confused with the use of vehicles for play. Public comments make it clear that motorized-vehicle access and off-highway vehicle play need to be clearly separated and managed differently.

While the Bureau is responsible for vehicle use on public lands, much of the control of vehicle travel in the desert is the responsibility of the user, whether the goal is recreational or commercial. The Bureau of Land Management does not and will not have the funds or staff to oversee vehicle use throughout the desert at all times. Therefore, rules for vehicle use must be fair, understandable, easy to follow, and reasonable if they are to be publicly accepted. Only commitment by the public, the owners of these lands, will insure success of rules and guidelines.

*from California Desert Conservation Area Management
Plan (1980), as amended*

Issuance of Executive Orders and Development of Regulations

The increased popularity and widespread use of off-highway vehicles (OHVs) on federal lands in the 1960s and early 1970s prompted the development of a unified federal policy for such use. Executive Order 11644 ("Use of Off-Road Vehicles on the Public Lands") was issued on February 9, 1972 (87 F.R. 2877), to establish policies and provide for procedures to control and direct the use of OHVs on federal lands so as to (1) protect the resources of those lands, (2) promote the safety of all users of those lands, and (3) minimize conflicts among the various uses of those lands. The order directs the agency heads responsible for managing the federal

lands to issue regulations governing the designation of areas where OHVs may and may not be used. Under the order, OHV use can be restricted or prohibited to minimize (1) damage to the soil, watersheds, vegetation, or other resources of the federal lands; (2) harm to wildlife or wildlife habitats; and (3) conflicts between the use of OHVs and other types of recreation. It also requires the federal agencies to issue OHV use regulations, inform the public of the lands' designation for OHV use through signs and maps, enforce OHV use regulations, and monitor the effects of OHV use on the land.

Executive Order 11989 ("Off-Road Vehicles on Public Lands") was issued on May 24, 1977 (42 F.R. 26959), and contains three amendments to the previous order. While these amendments lift restrictions on the use of military and emergency vehicles on public lands during emergencies, they otherwise strengthen protection of the lands by authorizing agency heads to (1) close areas or trails to OHVs causing considerable adverse effects and (2) designate lands as closed to OHVs unless the lands or trails are specifically designated as open to them.

The BLM developed regulations (Title 43 of the Code of Federal Regulations [CFR] 8340) in response to the executive orders. These regulations require the agency to designate areas where OHVs may be used and to manage the use of OHVs on public lands through the resource management planning process, which allows for public participation. The regulations also require the BLM to monitor the use of OHVs, identify any adverse effects of their use, and take appropriate steps to counteract such effects.

Development of the CDCA Management Plan

Recognizing that resources of the California desert can and should "provide present and future use and enjoyment, particularly outdoor recreation uses, including the use, where appropriate, of off-road recreational vehicles," Congress, through Section 601 of the Federal Land Policy and Management Act of 1976 (FLPMA), directed the Secretary of the Interior to prepare and implement a comprehensive, long-range plan for the management, use, development, and protection of the public lands within the California Desert Conservation Area. In response, the Bureau of Land Management prepared the CDCA Management Plan (1980), an element of which addresses motorized-vehicle access.

Consistent with Executive Orders No. 11644 and No. 11989, all public lands in the California desert were designated as "open," "limited," or "closed" through the CDCA Plan. Subsequent to designation of areas for motorized-vehicle use, the Plan required on-the-ground route designation to occur within Multiple-Use Class (MUC) "L" (Limited), while existing routes of travel could be utilized in Multiple-Use Classes "I" (Intensive), "M" (Moderate) and "C" (Controlled), with MUC "C" being managed commensurate with MUC "L" guidelines until Congress designated these areas as wilderness. ("Existing routes of travel" were defined as routes existing before December 31, 1978 [the date of full aerial photo coverage of the CDCA].")

Route designation criteria for MUC "L" were identified in the CDCA Plan as follows:

- (1) Is the route new or existing?
- (2) Does the route provide access for resource use or enjoyment?
- (3) Are there alternate access opportunities?
- (4) Does the route cause considerable adverse impacts?
- (5) Are there alternate access routes which do not cause considerable

adverse impacts?

1982 Amendment to the CDCA Management Plan

Subsequent to approval of the CDCA Plan in 1980, environmental organizations filed action in U.S. District Court, C.D. California, challenging its route designation criteria. In response, the BLM amended the CDCA Plan's Motorized-Vehicle Access element (1982 Plan Amendment Three, approved May 17, 1983) to conform with 43 CFR 8342.1. Route approval would be based on the following criteria:

- (1) Areas and trail shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
- (2) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
- (3) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
- (4) Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

MUC guidelines for motorized-vehicle access

The 1982 amendment modified or reiterated prescriptions relative to motorized-vehicle access, including changes to the MUC guidelines established through the 1980 Plan. These guidelines are described below.

MUC "C": Vehicle use on lands preliminarily recommended as suitable for wilderness, but not yet so designated by Congress, will be managed under guidelines described for Multiple-Use Class "L."

MUC "L": Vehicle access will be directed toward use of approved ("open" or "limited") routes of travel. Routes not approved in MUC "L" areas will be reviewed and, after opportunity for public comment, those routes deemed to conflict with management objectives or to cause unacceptable resource damage will be given priority for closure through obliteration, barricading, or signing. All remaining routes of travel in these areas will be monitored for either inclusion as approved routes, or for closure to resolve specific problems.

MUC "M": Access will be on "existing" routes unless it is determined that use on specific routes must be further limited. An "existing" route is one established before approval of the Desert Plan in 1980, with a minimum width of two feet, showing significant surface evidence of prior vehicle use or, for washes, history of prior use.

MUC "I": Unless it is determined that further limitations are necessary, those areas not designated "open" will be limited to use of "existing" routes.

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ACECs: In ACECs where vehicle use is allowed, vehicle access will be managed under the guidelines for MUC “L.”

Undesignated Areas: In areas not assigned to a Multiple-Use Class, the route approval process will be applied as needed to resolve specific problems and to establish a cohesive program.

Washes, sand dunes, and dry lakes

The 1982 CDCA Plan amendment also addressed motorized-vehicle access on washes, sand dunes, and dry lakes:

Washes

Vehicle access using desert washes will be governed by the area designation for the vicinity in which the wash is located. In areas designated “closed,” vehicle access in desert washes will be prohibited. In areas designated “open,” vehicle access in desert washes will be permitted. In all “limited” areas, vehicle use in desert washes will be controlled in the same manner as for routes of travel in MUC “L,” “M,” and “I.”

In the context of motorized-vehicle access, the term “wash” is defined as a watercourse, either dry or with running or standing water, which by its physical nature—width, soil, slope, topography, vegetative cover, etc.—permits the passage of motorized vehicles (Appendix VI, CDCA Plan). The implication of this definition is that washes can be considered as routes of travel only if wash banks are not compromised (primarily a function of width), soil stability is not adversely affected, and vegetation is not destroyed consequent to the passage of vehicles. If access to a wash by motorized vehicles results in vegetative destruction, disturbance to the integrity of wash banks, or an unacceptable degree of soil erosion—the destruction of natural features—the wash is not considered to be a route of travel.

Sand Dunes and Dry Lakes

Due to the unique geography of these areas, “routes of travel” cannot be readily delineated. Therefore, significant sand dunes and dry lakes within the California desert are designated either “open” or “closed” to vehicular travel regardless of the Multiple-Use Class in which the dune system or dry lake is located. The management objective for each dune system or dry lake will dictate the area’s vehicle use designation.

Route designation definitions

The 1982 amendment defined route designations in the following manner:

Open Route

Access on the route by motorized vehicles is allowed.

Limited Route

Access on the route is limited to use by motorized vehicles in one or more of the following ways and limited with respect to:

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- 1) number of vehicles allowed
- 2) types of vehicles allowed
- 3) time or season of vehicle use
- 4) permitted or licensed vehicle use only
- 5) establishment of speed limits

The same exceptions to motorized-vehicle use of closed routes also apply to limited routes (see below, “Closed Route”).

Closed Route

Access on the route by motorized vehicles is prohibited except: (1) fire, military, emergency or law enforcement vehicles when used for emergency purposes; (2) combat or combat support vehicles when used for national defense purposes; (3) vehicles whose use is expressly authorized by an agency head under a permit, lease, or contract; and (4) vehicles used for official purposes by employees, agents, or designated representatives of the Federal Government or one of its contractors.

Except in Congressionally-designated wilderness areas, “open,” “limited,” and “closed” route designations may be made in each of the Multiple-Use Classes, in Areas of Critical Environmental Concern (ACECs), and in unclassified lands.

Implementation of the CDCA Management Plan

From 1973 to approval of the CDCA Plan in 1980, BLM managed access under the Interim Critical Management Program (ICMP). An integral part of that program was the release of a series of 22 maps covering the entire CDCA. These maps illustrated the ICMP designations and delineated a network of access routes compiled from existing maps, public input, and field review.

With approval of the CDCA Plan, the new OHV area designations became effective, and the ICMP maps and designations became invalid. However, until implementation of the CDCA Plan’s Motorized-Vehicle Access Element, as amended, is complete, existing routes of travel may be used in all MUC “L” and “M” areas, in unclassified lands, and in those MUC “I” areas not designated “open” to motorized-vehicle access. In some areas, certain routes were closed under ICMP guidelines; these will remain closed. As implementation proceeds, some old limitations (including closures) may be revoked and others added.

COACHELLA VALLEY CDCA PLAN AMENDMENT

Section 2.1.3.16 describes alternatives for route designations in the Coachella Valley CDCA planning area, excluding the NECO overlap area. Table D-2 identifies proposed designations on an alternative by alternative, route by route basis, and references by an assigned number the specific U.S. Geological Survey (U.S.G.S.) 1:24,000 scale maps on which the routes can be located. Table D-1 relates this number to the name of the U.S.G.S. map along with the U.S.G.S. map code. Large-scale maps depicting the routes addressed are available for review in the BLM Palm Springs-South Coast Field Office (North Palm Springs) and the BLM California Desert District Office (Riverside).

TABLE D-1. MAP RELATES

Map number referenced in Table D-2	U.S.G.S. 1:24,000 map name	U.S.G.S. map code
1	Morongo Valley	34116A5
2	Yucca Valley South	34116A4
3	White Water	33116H6
4	Desert Hot Springs	33116H5
5	Seven Palms Valley	33116H4
6	East Deception Canyon	33116H3
7	Palm Springs	33116G5
8	Cathedral City	33116G4
9	Myoma	33116G3
10	West Berdoo Canyon	33116G2
11	Palm View Peak	33116F5
12	Rancho Mirage	33116F4
13	La Quinta	33116F3
14	Indio	33116F2
15	Thermal Canyon	33116F1
16	Toro Peak	33116E4
17	Martinez Mountain	33116E3
18	Valerie	33116E2
19	Mecca	33116E1
20	Rabbit Peak	33116D2
21	Oasis	33116D1
22	Mortmar	33115E8
23	Orocopia Canyon	33115E7
24	Salton	33115D8
25	Durmid	33115D7

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
1	CV001	0.6	N	Y/N	0.6		0.6		0.6		0.6		Canyon House Rd: access route to private property crossing public lands.
1	CV002	0.8	Y	Y/N		0.8		0.8		0.8		0.8	Gated access route to Big Morongo Canyon Preserve / ACEC.
1	CV003	4.3	Y	Y		4.3		4.3		4.3		4.3	Gated access route in Big Morongo Canyon located in Big Morongo Canyon Preserve / ACEC.
1	CV004	0.3	Y/N	Y	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	Midway Canyon: Northern segment of multi-jurisdictional route in Big Morongo Canyon Preserve / ACEC.
1	CV005	3.3	N	Y	3.3		3.3			3.3	3.3		Kickapoo Trail in Little Morongo Canyon of Big Morongo Canyon Preserve / ACEC.
2	CV005	2.8	N	Y	2.8		2.8			2.8	2.8		Kickapoo Trail in Little Morongo Canyon of Big Morongo Canyon Preserve / ACEC.
3	CV006	1.5	Y	Y		1.5		1.5		1.5		1.5	Gated access route to windfarm - closed to general public.
3	CV007	0.1	Y	Y		0.1		0.1		0.1		0.1	Cottonwood Canyon: gated route at public land boundary precludes general public access.
3	CV008	8.3	Y	Y		8.3		8.3		8.3		8.3	Gated complex of access routes to and within windfarm -- closed to general public.
3	CV009	2.5	Y	Y		2.5		2.5		2.5		2.5	Gated complex of access routes to and within windfarm -- closed to general public.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
3	CV010	0.3	Y	Y		0.3		0.3		0.3		0.3	Gated access route to public lands north of Whitewater Trout Farm -- closed to general public.
3	CV011	1.4	N	Y	1.4		1.4		1.4		1.4		Multi-jurisdictional complex of routes adjacent to Whitewater Canyon Rd -- closure of public land segments would not be manageable.
3	CV012	2.2	N	Y	2.2			2.2		2.2	2.2		Complex of access routes to and within windfarm and mine site.
3	CV013	1.3	N	Y	1.3			1.3		1.3	1.3		Complex of access routes to and within mine site.
3	CV014	1.5	N	Y	1.5			1.5		1.5	1.5		Complex of access routes to and within Whitewater Hill windfarm.
3	CV015	1.1	N	Y	1.1		1.1			1.1	1.1		Multi-jurisdictional powerline route in rugged terrain -- closure of public land segment (Alt. C) would disrupt connectivity for general public use.
3	CV016	0.9	N	Y	0.9			0.9		0.9	0.9		Multi-jurisdictional parallel route to CV017 -- route is redundant.
3	CV017	0.7	N	Y	0.7			0.7		0.7	0.7		Multi-jurisdictional utility line route -- closure of public land segments (Alt. B and C) would disrupt connectivity for general public use; route is redundant of route to south on non-public lands.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
3	CV018	0.5	N	Y	0.5			0.5		0.5	0.5		Dead-end spur route off CV017 -- entirely on public lands.
3	CV019	0.6	N	Y	0.6		0.6			0.6	0.6		Multi-jurisdictional access route to windfarm, as well as public and non-public lands to the west - closure of public land segment (Alt. C) would disrupt connectivity for general public use.
3	CV020	0.2	N	Y	0.2			0.2		0.2	0.2		Multi-jurisdictional parallel route to segment of CV019 -- route is redundant.
3	CV021	0.4	N	Y	0.4			0.4		0.4	0.4		Multi-jurisdictional route accessed from Snow Creek Rd: access point on public lands.
3	CV022	0.3	N	Y	0.3		0.3		0.3		0.3		Multi-jurisdictional route extending west from Snow Creek Village -- gated at public/private land boundary.
3	CV023	0.1	N	Y	0.1		0.1		0.1		0.1		Multi-jurisdictional route adjacent to Snow Creek Village.
3	CV024	0.4	Y	Y		0.4		0.4		0.4		0.4	Gated access route to Desert Water Agency facilities.
3	CV025	0.6	N	Y	0.6		0.6			0.6	0.6		Multi-jurisdictional route parallel to Snow Creek Rd -- closure of public land segment (Alt. C) would be difficult to manage.
3	CV026	1.0	N	Y	1.0			1.0		1.0	1.0		Multi-jurisdictional route providing access to the Windy Point area -- access point from Snow Creek Road on public lands.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
3	CV027	1.1	N	Y	1.1			1.1		1.1	1.1		Loop route entirely on public lands with terminal points intersecting CV026.
3	CV028	0.6	N	Y	0.6			0.6		0.6	0.6		Multi-jurisdictional route providing access to Windy Point and western sand dunes (not designated as an OHV open area under Alts. B, C and D) from CV026.
3	CV125	0.1	N	Y	0.1		0.1		0.1		0.1		Multi-jurisdictional route with short segments on public lands.
4	CV004	0.1	N	Y	0.1		0.1		0.1		0.1		Multi-jurisdictional route in Midway Canyon.
4	CV014	2.7	N	Y	2.7			2.7		2.7	2.7		Complex of access routes to and within Whitewater Hill windfarm.
4	CV029	1.3	Y/N	Y	0.2	1.1	0.2	1.1	0.2	1.1	0.2	1.1	Mission Creek access route -- segment west of gate closed to general public.
4	CV030	0.3	N	Y	0.3			0.3		0.3	0.3		Multi-jurisdictional route providing access to CV013 complex of routes within mine site.
4	CV031	1.1	Y/N	N	0.2	0.9	0.2	0.9	0.2	0.9	0.2	0.9	Multi-jurisdictional route along Colorado River Aqueduct -- segment southwest of gate closed to general public.
4	CV032	0.4	Y/N	N	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Multi-jurisdictional Painted Hill Trail providing access to Colorado River Aqueduct -- segment north of gate closed to general public.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
4	CV033	0.3	N	Y/N	0.3		0.3		0.3		0.3		Multi-jurisdictional Old Morongo Valley Rd -- short segments on public lands.
4	CV034	0.8	Y	N		0.8		0.8		0.8		0.8	Gated access route paralleling railroad tracks to windfarm sites - closed to general public.
4	CV035	0.2	N	N	0.2		0.2		0.2		0.2		Multi-jurisdictional access route paralleling railroad tracks -- short segments on public lands.
4	CV125	0.2	N	Y	0.2		0.2		0.2		0.2		Multi-jurisdictional route with short segments on public lands.
5	CV036	0.3	Y	Y		0.3		0.3		0.3		0.3	Multi-jurisdictional route in Big Morongo Canyon ACEC.
5	CV037	0.3	Y	Y		0.3		0.3		0.3		0.3	Gated access route in Big Morongo Canyon Preserve / ACEC -- closed to general public.
5	CV038	1.2	N	Y	1.2		1.2			1.2	1.2		Multi-jurisdictional route providing access to Long Canyon and Big Morongo Canyon Preserve / ACEC -- closure (Alt. C) would preclude access to this western part of Joshua Tree National Park.
5	CV039	0.7	N	N	0.7			0.7		0.7	0.7		Popular OHV route -- redundant of adjacent routes on non-public lands.
5	CV040	0.4	N	N	0.4		0.4		0.4		0.4		Multi-jurisdictional Hacienda Drive continuation -- short segments on public lands.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
5	CV041	0.3	N	Y	0.3		0.3		0.3		0.3		Multi-jurisdictional route providing access to home sites on non-public lands.
5	CV042	0.5	Y	Y		0.5		0.5		0.5		0.5	Multi-jurisdictional route within Willow Hole Unit of Coachella Valley Preserve / ACEC.
5	CV043	0.5	N	Y	0.5		0.5		0.5		0.5		Multi-jurisdictional route along southwest side of Willow Hole Unit of Coachella Valley Preserve / ACEC -- short segments of overall route on public lands.
5	CV044	0.9	Y/N	Y/N	0.5	0.4		0.9		0.9	0.5	0.4	Multi-jurisdictional route -- western segment within Willow Hole Unit of Coachella Valley Preserve / ACEC (closed under all Alts.); eastern segment closed under Alts. B and C.
5	CV045	3.7	N	N	3.7			3.7		3.7	3.7		Complex of routes on public lands (designated as an OHV open area only under Alt. A).
5	CV200	0.9	N	N	0.9		0.9			0.9	0.9		Multi-jurisdictional route along northern edge of CV045 complex of routes -- closure (Alt. C) would disrupt connectivity for general public use through this part of the Indio Hills.
6	CV046	0.2	N	Y	0.2		0.2		0.2		0.2		Multi-jurisdictional route with very short segment on public lands.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

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6	CV047	0.4	N	Y	0.4			0.4		0.4	0.4		Spur route off CV046; entirely on public lands -- used to access target shooting site.
8	CV049	0.2	N	N	0.2		0.1	0.1	0.1	0.1	0.2		Multi-jurisdictional route with very short segments on public lands -- segment east of Morongo Wash closed under Alts. B and C.
8	CV050	1.1	N	Y	1.1			1.1		1.1	1.1		Multi-jurisdictional route providing access to south base of Flat Top Mountain.
8	CV051	0.3	N	Y	0.3		0.3		0.3		0.3		Multi-jurisdictional route with very short segments on public lands -- provides access to Edom Hill.
8	CV052	2.1	N	Y	2.1		2.1		0.9	1.2	2.1		Southeastern segment is multi-jurisdictional route; northern segment is entirely on public lands --- northern segment closed under Alt. C.
8	CV053	0.3	N	Y	0.3		0.3		0.3		0.3		Multi-jurisdictional route with short segments on public lands.
8	CV054	0.5	N	Y	0.5		0.5			0.5	0.5		Spur route off CV052 -- mostly on public lands.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

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8	CV055	1.1	Y	Y		1.1		1.1		1.1		1.1	Dunn Road -- temporarily closed on public lands; closure would continue under all Alts. Under Alt. B, re-designation of the route would be considered upon recovery of Peninsular Ranges bighorn sheep; motorized commercial recreational use (e.g., jeep tours) would be confined to the fall months in areas that do not conflict with bighorn sheep recovery, as determined through consultation with the U.S. Fish and Wildlife Service, and subject to permitted access across non-public lands.
8	CV056	1.0	Y	Y		1.0		1.0		1.0		1.0	Gated route on flood control levee -- closed to general public.
9	CV057	2.5	Y	Y		2.5		2.5		2.5		2.5	Route in Coachella Valley Preserve / ACEC -- route in ACEC all on public lands.
9	CV058	1.0	Y	Y		1.0		1.0		1.0		1.0	Route in Coachella Valley Preserve / ACEC -- route in ACEC all on public lands.
9	CV059	0.8	Y	Y		0.8		0.8		0.8		0.8	Route in Coachella Valley Preserve / ACEC -- route in ACEC all on public lands.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
9	CV060	0.6	N	N	0.6		0.6		0.6		0.6		Multi-jurisdictional complex of routes -- closure of public land segments would not be manageable.
9	CV061	0.6	Y	Y		0.6		0.6		0.6		0.6	Route in Coachella Valley Preserve / ACEC -- route entirely on public lands.
9	CV062	1.8	Y	Y		1.8		1.8		1.8		1.8	Route in Coachella Valley Preserve / ACEC -- route entirely all on public lands.
9	CV063	0.3	Y	Y		0.3		0.3		0.3		0.3	Route in Coachella Valley Preserve (but not the ACEC) -- route entirely on public lands.
9	CV064	0.9	Y	Y		0.9		0.9		0.9		0.9	Multi-jurisdictional route in Coachella Valley Preserve / ACEC -- provides access to Pushawalla Canyon.
9	CV067	1.5	N	Y	1.5		1.5		1.5	1.5			Multi-jurisdictional route in Coachella Valley Preserve / ACEC -- segments of route in ACEC entirely on public lands, though they constitute a small portion of the overall route; closure (Alt C.) would disrupt connectivity for general public use.
9	CV074	0.6	N	Y	0.6		0.6		0.6		0.6		Multi-jurisdictional route along major powerline in Coachella Valley Preserve / ACEC -- small segment of overall route on public lands.

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Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
10	CV065	0.7	N	Y	0.7		0.7			0.7	0.7		Multi-jurisdictional route providing access to boundary of Joshua Tree National Park -- closure of route (Alt. C) would preclude access to Pushawalla Canyon.
10	CV066	0.4	N	Y	0.4		0.4			0.4	0.4		Multi-jurisdictional route providing access to boundary of Joshua Tree National Park -- closure of route (Alt. C) would preclude access to Pushawalla Canyon.
10	CV067	1.4	N	Y/N	1.4		1.4		0.9	0.5	1.4		Multi-jurisdictional route -- segment of route in Coachella Valley Preserve / ACEC entirely on public lands, though it constitutes a small portion of the overall route; closure of this segment (Alt. C) would disrupt connectivity for general public use.
10	CV068	0.9	N	Y	0.9			0.9		0.9	0.9		Multi-jurisdictional route to communications site -- western segment of route, including communications site, entirely on public lands.
10	CV070	0.2	N	N	0.2		0.2		0.2		0.2		Multi-jurisdictional route -- short segment of route on public lands.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

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10	CV075	1.1	N	Y/N	1.1		1.1			1.1	1.1		Multi-jurisdictional route along pipeline -- closure (Alt. C) would disrupt connectivity for general public use.
10	CV076	1.2	N	Y/N	1.2		0.2	1.0		1.2	1.2		Multi-jurisdictional route partially along transmission line -- closure of segment in Sec. 2 (Alts. B and C) would preclude access to gravel pit area; closure of all segments on public lands (Alt. C) would disrupt connectivity of the segment in Sec. 12 for general public use.
11	CV077	0.7	Y	Y		0.7		0.7		0.7		0.7	Multi-jurisdictional route in Dry Wash -- temporarily closed on public lands (in conjunction with Dunn Road closure); closure would continue under all Alts.
11	CV078	0.8	Y	Y		0.8		0.8		0.8		0.8	Multi-jurisdictional route in Palm Canyon -- access is currently precluded by temporary closure on Dry Wash route.
11	CV079	1.2	Y	Y		1.2		1.2		1.2		1.2	Multi-jurisdictional route in Palm Canyon.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

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12	CV055	6.4	Y	Y		6.4		6.4		6.4		6.4	Dunn Road -- temporarily closed on public lands; closure would continue under all Alts. Under Alt. B, re-designation of the route would be considered upon recovery of Peninsular Ranges bighorn sheep; motorized commercial recreational use (e.g., jeep tours) would be confined to the fall months in areas that do not conflict with bighorn sheep recovery, as determined through consultation with the U.S. Fish and Wildlife Service, and subject to permitted access across non-public lands.
12	CV077	1.4	Y	Y		1.4		1.4		1.4		1.4	Dry Wash route -- temporarily closed on public lands (in conjunction with Dunn Road closure); closure would continue under all Alts.
12	CV080	2.0	Y	Y		2.0		2.0		2.0		2.0	Connecting route between the Dry Wash route and Dunn Road -- no longer used; entirely on public lands. Temporarily closed in conjunction with Dunn Road closure.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

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12	CV081	0.5	Y	Y		0.5		0.5		0.5		0.5	Multi-jurisdictional spur route off Dunn Road -- temporarily closed on public lands in conjunction with Dunn Road closure.
12	CV082	1.0	Y	Y		1.0		1.0		1.0		1.0	Route connecting Potrero Spring and Dunn Road -- temporarily closed on public lands in conjunction with Dunn Road closure; closure would continue under Alt. B, re-designation of the route would be considered upon recovery of Peninsular Ranges bighorn sheep; motorized commercial recreational use (e.g., jeep tours) would be confined to the fall months in areas that do not conflict with bighorn sheep recovery, as determined through consultation with the U.S. Fish and Wildlife Service, and subject to permitted access across non-public lands.
12	CV083	0.1	Y	Y		0.1		0.1		0.1		0.1	Multi-jurisdictional gated route -- public lands are located at end of route; closed to general public use.

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12	CV084	0.3	Y	Y		0.3		0.3		0.3		0.3	Multi-jurisdictional gated route -- provides access to Carrizo Canyon Ecological Reserve; closed to general public use.
12	CV088	0.1	Y	Y		0.1		0.1		0.1		0.1	Gated access route -- closed to general public use.
13	CV085	0.3	Y	Y		0.3		0.3		0.3		0.3	Multi-jurisdictional gated route south of La Quinta Cove -- closed to general public use.
13	CV086	0.3	N	Y		0.3		0.3		0.3		0.3	Multi-jurisdictional loop route at shooting range north of Lake Cahuilla County Park.
15	CV087	1.8	N	N	1.8		1.8		1.8		1.8		Multi-jurisdictional route along the Coachella Canal -- segments on public lands constitute a small portion of the overall route.
16	CV088	0.2	Y	Y		0.2		0.2		0.2		0.2	Multi-jurisdictional gated route -- closed to general public use.
16	CV089	0.5	Y	Y		0.5		0.5		0.5		0.5	Multi-jurisdictional gated route (most of route is on public lands) - closed to general public use.
17	CV090	1.4	N	Y	1.4			1.4		1.4	1.4		Multi-jurisdictional route coincident with Boo Hoff Trail along eastern edge of Santa Rosa Wilderness -- southern portion on public lands.
17	CV091	0.3	N	N	0.3		0.3		0.3		0.3		Multi-jurisdictional route -- small segments of route on public lands.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

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17	CV092	0.3	N	Y	0.3			0.3		0.3	0.3		Multi-jurisdictional route -- western segment on public lands intersects CV090.
18	CV093	0.8	N	Y	0.8		0.8		0.8		0.8		Multi-jurisdictional route providing access to Martinez Canyon.
22	CV095	1.0	N	N	1.0		1.0		1.0		1.0		Multi-jurisdictional route along the Coachella Canal -- segments on public lands constitute a small portion of the overall route.
22	CV096	1.0	N	N	1.0		1.0		1.0		1.0		Multi-jurisdictional route along the Coachella Canal -- segments on public lands constitute a small portion of the overall route.
22	CV097	0.5	N	N	0.5		0.5			0.5	0.5		Multi-jurisdictional route -- redundant; closure (Alt. C) would isolate non-public lands and be difficult to implement given terrain and proximity of informally established complex of routes.
22	CV098	0.6	N	N	0.6		0.6			0.6	0.6		Multi-jurisdictional powerline route -- closure of public land segment (Alt. C) would disrupt connectivity for general public use.
22	CV099	0.4	N	N	0.4			0.4		0.4	0.4		Route entirely on public lands between CV097 and CV119 -- redundant.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
22	CV100	0.9	N	N	0.9		0.9		0.9		0.9		Route complex on public lands adjacent to community of Desert Beach -- provides access to Salton Sea.
23	CV096	4.3	N	Y/N	4.3		4.3		4.3		4.3		Multi-jurisdictional route along the Coachella Canal -- segments on public lands constitute a portion of the overall route; segments occur within Dos Palmas Preserve / ACEC.
23	CV097	0.4	N	N	0.4		0.4		0.4		0.4		Multi-jurisdictional route -- redundant; closure (Alt. C) would isolate non-public lands and be difficult to implement given terrain and proximity of informally established complex of OHV routes.
23	CV101	1.2	Y/N	Y/N	0.1	1.1	0.1	1.1	0.1	1.1	0.1	1.1	Multi-jurisdictional route -- majority of route in Dos Palmas Preserve / ACEC; closed to general public use.
23	CV102	3.1	N	Y/N	3.1		3.1		3.1		3.1		Multi-jurisdictional route paralleling Coachella Canal -- segments occur within Dos Palmas Preserve / ACEC.
23	CV103	1.6	Y/N	Y/N	0.9	0.7	0.9	0.7	0.9	0.7	0.9	0.7	Multi-jurisdictional Palmas Spring Rd. -- segment within Dos Palmas Preserve / ACEC closed under all Alts -- closed to general public use.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
23	CV104	0.2	N	N	0.2		0.2			0.2	0.2		Multi-jurisdictional route primarily on non-public lands -- closure (Alt. C) would isolate non-public lands and be difficult to implement given terrain and proximity of informally established complex of OHV routes.
23	CV105	0.9	Y	Y		0.9		0.9		0.9		0.9	Multi-jurisdictional route within Dos Palmas Preserve / ACEC -- closed to general public use.
23	CV106	0.9	Y	Y		0.9		0.9		0.9		0.9	Multi-jurisdictional route within Dos Palmas Preserve / ACEC -- closed to general public use.
23	CV107	0.3	Y	Y		0.3		0.3		0.3		0.3	Multi-jurisdictional route within Dos Palmas Preserve / ACEC -- closed to general public use.
23	CV108	0.2	Y	Y		0.2		0.2		0.2		0.2	Multi-jurisdictional route within Dos Palmas Preserve / ACEC -- closed to general public use.
23	CV109	0.6	Y	Y		0.6		0.6		0.6		0.6	Multi-jurisdictional route traversing corner of Dos Palmas Preserve / ACEC -- closed to general public use.
23	CV110	0.6	N	Y	0.6		0.6		0.6		0.6		Multi-jurisdictional route paralleling Coachella Canal -- public land segment constitutes a portion of the overall route.
23	CV111	2.4	Y	Y		2.4		2.4		2.4		2.4	Complex of routes on public lands in Dos Palmas Preserve / ACEC -- closed to general public use.

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N/)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
24	CV098	0.2	N	N	0.2		0.2			0.2	0.2		Multi-jurisdictional powerline route -- closure of public land segment (Alt. C) would disrupt connectivity for general public use.
24	CV112	0.4	N	N	0.4		0.4		0.4		0.4		Section line route bounding public and non-public lands -- provides access to Dos Palmas Preserve / ACEC.
24	CV113	0.1	N	N	0.1		0.1		0.1		0.1		Western extension of route providing access to Dos Palmas Preserve / ACEC.
25	CV098	1.9	Y/N	Y/N	0.6	1.3	0.6	1.3		1.9	0.6	1.3	Multi-jurisdictional powerline route -- closure of public land segment outside Dos Palmas Preserve / ACEC (Alt. C) would disrupt connectivity for general public use; closed to public use within Preserve / ACEC under all Alts.
25	CV109	0.6	Y	Y		0.6		0.6		0.6		0.6	Multi-jurisdictional route traversing corner of Dos Palmas Preserve / ACEC -- closed to general public use.
25	CV112	1.7	Y/N	Y/N	0.3	1.4	0.3	1.4	0.3	1.4	0.3	1.4	Section line route bounding public and non-public lands -- provides access to Dos Palmas Preserve / ACEC; closed segment within Preserve / ACEC (all Alts.-- closed to general public use).

TABLE D-2. ROUTE DESIGNATION PROPOSALS

Map #	Rte #	Miles on BLM lands	Existing Closure? (Y/N)	MSHCP Cons. Area? (Y/N)	Alt. A Open Miles (BLM)	Alt. A Closed Miles (BLM)	Alt. B Open Miles (BLM)	Alt. B Closed Miles (BLM)	Alt. C Open Miles (BLM)	Alt. C Closed Miles (BLM)	Alt. D Exist Miles (BLM)	Alt. D Closed Miles (BLM)	Notes
25	CV113	0.5	N	N	0.5		0.5			0.5	0.5		Section line route bounding public and non-public lands -- closure (Alt. C) consistent with closure of CV098, an intersecting route.
25	CV114	0.4	N	N	0.4		0.4		0.4		0.4		Section line route bounding public and non-public lands -- provides access to landing strip on non-public lands.
25	CV115	1.0	Y/N	Y/N		1.0		1.0		1.0		1.0	Route mostly within Dos Palmas Preserve / ACEC -- closed to general public use.
25	CV116	0.2	N	N	0.2			0.2		0.2	0.2		Spur route on public lands -- redundant.
25	CV117	0.3	N	N	0.3		0.3			0.3	0.3		Quarter section line route bounding public and non-public lands -- closure (Alt. C) consistent with closure of CV098 and CV113, which are connected by CV117.
25	CV118	0.2	N	N	0.2			0.2		0.2	0.2		Redundant route connecting CV098 and CV114.
25	CV120	1.8	Y/N	Y	0.8	1.0		1.8		1.8	0.8	1.0	Multi-jurisdictional route providing access to Oasis Springs along Salt Creek -- southern segment only in Dos Palmas Preserve / ACEC.
25	CV121	1.7	Y	Y		1.7		1.7		1.7		1.7	Multi-jurisdictional route paralleling railroad tracks that access Eagle Mountain -- public lands segments in Dos Palmas Preserve / ACEC; closed to general public use.

APPENDIX E: RECREATIONAL TRAIL USE

Table E-1 presents a summary of trail use in the Santa Rosa Mountains as observed by BLM Sheep Ambassadors from January 15 to June 30 2001, and January 1 to April 30, 2002. Sheep Ambassadors observed and recorded use on the following trails only:

- Art Smith Trail
- Bear Creek Canyon / Oasis Trail
- Boo Hoff Trail
- Morrow Trail
- Cathedral Canyon Trail
- Lower Dunn Road
- Upper Dunn Road
- Clara Burgess Trail

As part of their duties, Sheep Ambassadors directly contacted individuals and requested they voluntarily refrain from using the specified trails from January 1 to June 30 to protect the Peninsular Ranges bighorn sheep during the lambing season.

The following points are important for understanding the figures in Table E-1:

- ▶ **Column 3** ("Actual and Potential Trail Use") includes:
 - (a) number of individuals directly contacted by Sheep Ambassadors that did not comply with the request to voluntarily refrain from using the specified trails (see column 5); these are "actual" users
– plus –
 - (b) number of individuals directly contacted by Sheep Ambassadors that complied with the request to voluntarily refrain from using the specified trails (see column 5); these are "potential" users
– plus –
 - (c) number of individuals observed by Sheep Ambassadors using the specified trails before a contact could be made to request that they refrain from using them; these are "actual" users – this number is derived by subtracting the number of individuals not complying with the Sheep Ambassador request (subtract the second number from the first in column 5) from the number in column 6

► **Column 5** (“Effectiveness of Direct Request to Refrain from Using Trail”)

Individuals exhibited compliance by not using trails upon direct contact by Sheep Ambassadors. The number of these individuals appears in column 5. However, reports by individuals and organizations indicate that once contacted by Sheep Ambassadors and requested to refrain from using a particular trail, they did not return at a later date. Hence, they are counted as being compliant only once, though if the voluntary trail avoidance program was not in effect, they would have used the subject trails on other occasions. Further, it is believed that many individuals (though the number is unknown) have chosen to avoid the specified trails based on newspaper reports of the trail avoidance program, conversations with acquaintances who were contacted by Sheep Ambassadors, and posted signs at trailheads. Although compliant with the request, they are not counted. On the other hand, all individuals that choose not to comply with the request are counted as trail users when observed by the Sheep Ambassadors. Many of the noncompliant individuals are repeat users of these trails. These individuals are counted each and every time they are observed using the trails.

Therefore, it is reasonable to conclude that overall compliance with BLM's request to voluntarily refrain from using the specified trails is substantially higher than shown, though the extent is unknown. Whereas all noncompliant use is recorded while Sheep Ambassadors are on duty, the same cannot be stated for the compliant individuals who might otherwise have used the trails during the same on-duty periods—they are not reported in the table.

► **Column 6** (“Noncompliance with Direct Request and Sign Request to Refrain from Using Trail”)

The figures shown in this column include the number of individuals directly contacted by Sheep Ambassadors that did not comply with the request to voluntarily refrain from using the specified trails, plus the number of individuals observed using these trails before a contact could be made. It is reasonable to assume that the latter chose not to comply with the posted signs regarding the voluntary trail avoidance program.

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Table E-1. Summary of Trail Use, Santa Rosa Mountains

1 TRAIL	2 MONTH	3 ACTUAL AND POTENTIAL TRAIL USE (number of individuals by activity)			4 HOURS OF OBSERVATION BY BLM SHEEP AMBASSADORS	5 EFFECTIVENESS OF DIRECT REQUEST TO REFRAIN FROM USING TRAIL (number of contacts / number of individuals complying with direct request / percent compliance)	6 NONCOMPLIANCE WITH DIRECT REQUEST AND SIGN REQUEST TO REFRAIN FROM USING TRAIL (observed non- compliance with signs plus non-compliance with direct request to refrain from using trail / percent non-compliance)
		(a) HIKING	(b) MOUNTAIN BIKING	(c) HORSEBACK RIDING			
Art Smith Trail	Jan 2001	88	1	0	53	47 / 17 / 36%	72 / 81%
	Feb 2001	326	3	0	126	305 / 193 / 63%	136 / 41%
	Mar 2001	235	3	0	192	198 / 78 / 39%	160 / 67%
	Apr 2001	275	4	0	165	212 / 150 / 71%	129 / 46%
	May 2001	87	2	0	202	72 / 56 / 78%	33 / 37%
	Jun 2001	51	5	0	176	41 / 30 / 73%	26 / 46%
	Jan 2002	497	10	0	208	484 / 306 / 63%	203 / 40%
	Feb 2002	256	23	0	184	236 / 157 / 67%	122 / 44%
	Mar 2002	279	15	0	219	260 / 167 / 64%	127 / 43%
	Apr 2002	165	5	0	189	155 / 116 / 75%	54 / 32%
	TOTALS	2259	71	0	1714	2010 / 1270 / 63%	1062 / 46%
Bear Creek Canyon / Oasis Trails	Jan 2001	16	0	0	43	12 / 10 / 83%	6 / 38%
	Feb 2001	16	2	0	41	13 / 13 / 100%	5 / 28%
	Mar 2001	53	0	2	57	39 / 15 / 39%	40 / 73%

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	Apr 2001	29	0	0	0	44	20 / 13 / 65%	16 / 55%
	May 2001	2	0	0	0	40	1 / 1 / 100%	1 / 50%
	Jun 2001	0	0	0	0	19	0 / N/A / N/A	0 / N/A
	Jan 2002	50	0	0	0	45	32 / 19 / 63%	31 / 62%
	Feb 2002	35	0	0	0	79	29 / 22 / 67%	13 / 37%
	Mar 2002	76	0	0	0	77	72 / 56 / 64%	20 / 26%
	Apr 2002	35	0	0	0	72	34 / 26 / 75%	9 / 26%
	TOTALS	312	2	2	2	517	252 / 175 / 69%	141 / 45%
Boo Hoff Trail	Jan 2001	33	0	0	11	34	35 / 22 / 63%	22 / 50%
	Feb 2001	27	0	0	6	76	16 / 8 / 50%	25 / 76%
	Mar 2001	44	12	0	0	80	28 / 20 / 71%	36 / 64%
	Apr 2001	14	1	12	12	75	17 / 15 / 88%	12 / 44%
	May 2001	7	0	0	0	67	7 / 5 / 71%	2 / 29%
	Jun 2001	1	0	0	0	45	1 / 0 / 0%	1 / 100%
	Jan 2002	20	0	0	10	46	25 / 12 / 48%	18 / 60%
	Feb 2002	34	5	0	0	48	34 / 13 / 39%	26 / 67%
	Mar 2002	8	0	0	12	58	20 / 12 / 60%	8 / 40%
	Apr 2002	11	0	0	0	70	8 / 8 / 100%	3 / 27%
	TOTALS	199	18	51	51	599	191 / 115 / 60%	153 / 57%
Morrow Trail	Jan 2001	45	0	0	0	36	29 / 17 / 59%	28 / 62%
	Feb 2001	148	2	16	16	69	100 / 47 / 47%	115 / 69%

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	Mar 2001	44	0	2	74	34 / 19 / 56%	27 / 59%
	Apr 2001	43	5	0	60	33 / 32 / 97%	16 / 33%
	May 2001	29	5	0	61	34 / 22 / 65%	12 / 35%
	Jun 2001	10	1	0	14	11 / 5 / 46%	6 / 55%
	Jan 2002	122	3	0	49	99 / 73 / 74%	52 / 42%
	Feb 2002	71	17	4	43	71 / 35 / 49%	57 / 62%
	Mar 2002	60	5	0	81	57 / 23 / 40%	42 / 65%
	Apr 2002	23	7	0	58	26 / 24 / 92%	6 / 20%
	TOTALS	595	45	22	545	494 / 297 / 60%	361 / 55%
Cathedral Canyon Trail	Jan 2001	2	0	0	46	1 / 1 / 100%	1 / 50%
	Feb 2001	3	0	0	39	0 / N/A / N/A	3 / 100%
	Mar 2001	4	2	0	50	2 / 2 / 100%	4 / 67%
	Apr 2001	0	0	0	86	0 / N/A / N/A	0 / N/A
	May 2001	0	0	0	43	0 / N/A / N/A	0 / N/A
	Jun 2001	2	0	0	34	2 / 2 / 100%	0 / 0%
	Jan 2002	6	0	0	87	2 / 0 / 0%	6 / 100%
	Feb 2002	0	0	0	87	0 / N/A / N/A	0 / N/A
	Mar 2002	4	0	0	98	4 / 3 / 75%	1 / 25%
	Apr 2002	4	0	0	105	4 / 0 / 0%	4 / 100%
	TOTALS	25	2	0	675	15 / 8 / 53%	19 / 70%

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Lower Dunn Road	Jan 2001	11	6	0	15	8 / 4 / 50%	13
	Feb 2001	41	29	0	93	40 / 21 / 53%	49
	Mar 2001	23	40	0	95	49 / 13 / 27%	50
	Apr 2001	31	48	0	76	29 / 14 / 48%	65
	May 2001	8	6	0	65	9 / 3 / 33%	11
	Jun 2001	4	1	0	60	2 / 1 / 50%	4
	Jan 2002	31	51	0	104	54 / 20 / 37%	62
	Feb 2002	15	38	0	103	41 / 3 / 7%	50
	Mar 2002	16	48	0	98	50 / 10 / 20%	54
	Apr 2002	22	30	0	111	35 / 20 / 57%	32
	TOTALS	202	297	0	820	317 / 109 / 34%	390 / 78%
	Jan 2001	N/A	N/A	N/A	0	N/A	N/A
	Feb 2001	25	17	0	51	8 / 8 / 100%	34 / 81%
Upper Dunn Road	Mar 2001	26	21	0	46	17 / 11 / 65%	36 / 77%
	Apr 2001	3	7	0	22	7 / 4 / 57%	6 / 60%
	May 2001	0	0	0	31	0 / N/A / N/A	0 / 0%
	Jun 2001	0	0	0	35	0 / N/A / N/A	0 / 0%
	Jan 2002	0	0	0	20	0 / N/A / N/A	0 / 0%
	Feb 2002	0	0	0	10	0 / N/A / N/A	3 / 100%
	Mar 2002	0	0	0	9	0 / N/A / N/A	3 / 100%
	Apr 2002	0	0	0	8	0 / N/A / N/A	0 / 0%
	Jan 2001	N/A	N/A	N/A	0	N/A	N/A
	Feb 2001	25	17	0	51	8 / 8 / 100%	34 / 81%
	Mar 2001	26	21	0	46	17 / 11 / 65%	36 / 77%
	Apr 2001	3	7	0	22	7 / 4 / 57%	6 / 60%
	May 2001	0	0	0	31	0 / N/A / N/A	0 / 0%
	Jun 2001	0	0	0	35	0 / N/A / N/A	0 / 0%

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	TOTALS	54	45	0	232	32 / 23 / 72%	82 / 83%
Clara Burgess Trail	Jan 2001	N/A	N/A	N/A	0	N/A	N/A
	Feb 2001	80	2	4	66	29 / 13 / 45%	76 / 88%
	Mar 2001	24	9	0	29	21 / 17 / 81%	16 / 49%
	Apr 2001	38	1	2	35	39 / 20 / 51%	21 / 51%
	May 2001	0	0	0	22	0 / N/A / N/A	0 / 0%
	Jun 2001	2	0	0	13	2 / 0 / 0%	2 / 100%
	Jan 2002	18	0	0	29	6 / 2 / 33%	16 / 89%
	Feb 2002	15	1	0	15	11 / 2 / 18%	14 / 88%
	Mar 2002	6	3	0	12	7 / 0 / 0%	9 / 100%
	Apr 2002	15	0	0	33	14 / 2 / 14%	13 / 87%
	TOTALS	198	16	6	254	129 / 56 / 43%	167 / 76%
GRAND TOTALS		3844	496	81	5356	3440 / 2053 / 60%	2375 / 54%
		4421					

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